



# **K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY**

**(Accredited by NAAC with “A+” grade,  
ISO 9001:2015 certified institution)**

**DEPARTMENT OF ELECTRICAL AND ELECTRONICS  
ENGINEERING**

# **ELEKTRA TIMES**



## ABOUT THE DEPARTMENT:



The Electrical and Electronics Engineering department of **K.Ramakrishnan college of Technology** was established in the year 2010. The young and energetic team of faculties and the dynamism shared by the students of the department have helped in lifting our pride and honor as best among the college. The department is providing a four year full time Under Graduate course of Bachelor of Engineering in Electrical and Electronics Engineering and a two year full time Post Graduate course of Master of Engineering in Power Electronics and Drives.

The well talented faculties specialized in Power Electronics and Drives, Power systems and Applied Electronics are available with us to equip the blooming minds of young engineers. The department has a total of six well developed laboratories such as

- Electrical Machines Lab
- Power Electronics & Drives Lab
- Electrical Circuits Lab
- Engineering practices lab
- Control Systems Lab
- Measurements and Instrumentation Lab
- Power System Simulation Lab
- Research and development lab
- Project lab

With the enthusiasm and smartness exhibit by the department and the hearty support given by the management, the days are not so far to reach our vision of being the pioneer in the global arena.

## **MISSION :**

1. To recommend quality education in electrical and electronic engineering and prepare the student for careers development and higher studies.
2. To support excellence in research activities through research lab and promotional activities with industries.
3. To build moral and ethical values along with academics to serve the society.

## **VISION :**

“To develop globally competent electrical engineers with excel in education in education and research thereby contribute values to the society.”

## **ELEKTRA TIMES :**

Our Department Association “ELEKTRA” has started its monthly Newsletter “ELEKTRA TIMES” in the month of August 2013 and it paves way for the students to publish their innovative ideas, creative artworks and thoughts in it. We feel immense pleasure in releasing the 6<sup>th</sup> issue of this newsletter through this magazine.

## WORDS OF DIGNITARIES....!

### HOD'S DESK :-



**Dr. A Rajkumar, Ph.D**

**HOD/EEE**

I am very grateful to the Management, Executive Director & Principal for their continuous support in encouraging our students through this newsletter **ELEKTRA TIMES**. Also I extend my hearty thanks to our department faculties and student volunteers for their hard work in releasing this newsletter in time.

This newsletter focuses on publishing the Innovative Ideas & skills of our student's ability and to honor the achievers of our department. The main goal is to motivate every student to come up with innovative ideas & other talents they possess. I congratulate my team of students for their creativity in designing this magazine to the expected standards. My best wishes to all our students who come out with their colorful ideas to join with us through this newsletter.

### *CHIEF EDITOR'S NOTE:-*



**A.T.SANKARA SUBRAMANIAN, M.E,(Ph.D)**

**A.HOD /EEE**

This is yet another accomplishment as a teamwork. Yes..!!! We are really delighted in releasing our sixth Newsletter in this month of Independence. We thank our HOD for his constant support and help to bring out this newly renovated "**ELEKTRA TIMES**" Newsletter. Creative thinkers and artists have decorated this ELEKTRA TIMES into an interesting newsletter.

We thank our Staff members who dedicatedly worked along with us and remain as a backbone for this ELEKTRA TIMES. It's our privilege to honor our ELEKTRA members and students who actively involved in publishing this newsletter. If you look at history, innovation doesn't come just from giving people incentives; it comes from creating environments where their ideas can connect. Here we are having such a positive environment.



## **PILLARS OF OUR DEPARTMENT.....!**

### ***TEACHING FACULTIES:***

1. Dr. A Rajkumar, Ph.D, Prof & Head/ EEE
2. Mr.A.T.Sankara Subramanian,M.E, (Ph.D), Asst. Prof & Asst. Head / EEE
3. Mr.M.D.Udayakumar, M.E, (Ph.D), Asst. Prof &Asst. Head/ EEE
4. Mr.S.Kodeeswaran, M.E, Asst. Prof / EEE
5. Mr.R.Ram Kumar, M.E,(Ph.D), Asst. Prof / EEE
6. Mr.A.AntonAmala Praveen, M.E, Asst. Prof /EEE
7. Mr.A.ArunVikram, M.E, (Ph.D), Asst. Prof / EEE
8. Mr.T.Ram Kumar, B.E, (M.E), Lecturer / EEE
9. Mrs.C.Kalavalli, M.Tech, (Ph.D), Asst. Prof / EEE
10. Mr.B.Karthikeyan, M.E, (Ph.D), Asst. Prof / EEE
11. Mr.L.Nagarajan, M.E, (Ph.D), Asst. Prof / EEE
12. Mr.P.Sabarish, M.E, (Ph.D), Asst. Prof / EEE
13. Mr.R.Jai Ganesh M.E, (Ph.D), Asst. Prof/EEE
14. Mr.J.Muru Gesan M.E, (Ph.D), Asst. Prof/EEE
15. Mr.T.Vishnu Kumar M.E, Asst. Prof/EEE
16. Mr.S.Arunraj M.E, Asst. Prof/EEE
17. Mr.V.Sureshkumar M.E, Asst. Prof/EEE
18. Mrs.S Vijayalakshmi M.E,Asst.Prof/EEE

### ***NON – TEACHING FACULTIES:***

1. Mrs.K.Bhaghya Lakshmi, D.EEE, B.Com, Lab Tech / EEE
2. Ms.B.Divya, D.ECE, Lab Tech / EEE
3. Mr.R.Arya Rajan, D.EEE, Lab Tech / EEE
4. Mr.Aliyar D.EEE, Lab Tech / EEE
5. Mr.P.Govindaraj, Attender/EEE

# ELEKTRA ASSOCIATION MEMBERS....!

***PRESIDENT***



***Gokula Krishnan T***

***SECRETARY***



***Sneha R***

***TREASURER***



***Navaneeth R***

***VICE PRESIENT***



***Arko Biswas***

***JOINT SECRETARY***



***Sowmya N***

***JOIN TREASURER***



***AlwynJoelraj A***

***OFFICE BEARERS***



***Ezhilmathi M***



***Bhaskar L***



***Ragavan D***



***Ramya N***



*Pavithra M*



*Arokia Christu Raja A*



*Rubiya Begam R*



*Uma Shankar G*



*Anu Keerthika*



*Amaresh S*



*Rama lakshmi*



*Pragadeesh*

***EDITORIAL HEAD: Joshua Smith S***



***DESIGN HEAD: Prusoth RJ***



***COMPEERING TEAM:***

1. R.DRISHYA (III YEAR )
2. ARKO BISWAAS (III YEAR)
3. R.SOORIYA PRIYADHARSHINI (IV YEAR)
4. G.WINSTON (IV YEAR)
5. D.RAGAVAN(IV YEAR)
6. S.ATHI RSHTALAKSHMI(IV YEAR)

***EEE CHOIR TEAM:***

1. M.BINUJA ANGELIN (IV YEAR)
2. S.ATHIRSTA LAKSHMI(IV YEAR)

***RECEPTION TEAM:***

1. N.RAMYA(IV YEAR)
2. S.JAYANTHI(III YEAR A )
3. C.SWEDHA(III YEAR B)
- 4.



## **GLITTERING STARS OF OUR DEPARTMENT....**

### ***II YEAR 'A' SECTION (3<sup>rd</sup> Semester)***



***Arko Biswas(7.95)***



***Poonguzhali R(7.83)***



***Poojalakshmi S(7.63)***

### ***II YEAR 'A' SECTION (4th Semester)***



***Arko Biswas(8.80)***



***Lokesh R(8.37)***



***Poojalakshmi S(7.63)***

### ***II YEAR 'B' SECTION (3<sup>rd</sup> Semester)***



*Sowmiya N(7.82)*

*Sri Maha M(7.56)*

*Rubiya Begam R(7.48)*

***II YEAR 'B' SECTION (4th Semester)***



*Sri Maha M(8.42)*



*Sowndharya M(8.30)*



*Priyanka S(8.09)*

***III YEAR 'A' SECTION (5th Semester)***



*Jancy Aishwarya A(8.2)*



*Ezhilmathi M(7.96)*



*Binujha Angelin M(7.88)*

***III YEAR 'A' SECTION (6th Semester)***



*Kajendiran G(8.58)*



*Jancy Aishwarya A(8.58)*



*Ezhilmathi M (8.54)*

**III YEAR 'B' SECTION (5<sup>th</sup> Semester)**



***Sneha R(7.92)***



***Navaneeth R(7.58)***



***Sowndarya S (7.32)***

**III YEAR 'B' SECTION (6<sup>th</sup> Semester)**



***Sowndarya S(8.54)***



***Sneha R(8.38)***



***Ramalekshmi M(7.33)***

**IV YEAR 'A' SECTION (7<sup>th</sup> Semester)**



***Geethanjali G(8.47)***



***Uma Maheshwari A(8.14)***



***Maheshwari G(8.14)***



***IV YEAR 'A' SECTION (8<sup>th</sup> Semester)***



***Geethanjali G(8.47)***



***Jayaram P(9.2)***



***Bhuvaneshwari(9.0)***

***IV YEAR 'B' SECTION (7<sup>th</sup> Semester)***



***Saravanan A(8.43)***



***Priyanaka R(8.29)***



***Nivetha R(8.14)***

***IV YEAR 'B' SECTION (8<sup>th</sup> Semester)***



***Shahul Hameed (9.2)***



***Sushmitha K (9.0)***



***Nivetha R(9.0)***



## **ASSOCIATION ACTIVITIES (2017 – 2018)...**

### **Inauguration :**

ELEKTRA Association Inaugurated last year on 06-09-2017.

### **INTERNATIONAL CONFERENCE :**

Association ELEKTRA conducted its international Conference on 23-03-17 and 24-03-17 & the Chief guest was Dr. P Raja from National institute of technology, Trichy.

### **Guest Lectures :**

- Dr. P Raja – Dept of EEE,NIT, Trichy for protection and switchgears on 18-08-2017.
- Dr. P Raja – Dept of EEE,NIT Trichy for Electrical Machines II on 23-08-20107.
- Dr. S Moorthi – dept of EEE,NIT Trichy for Digital Logic Circuits on 31-08-2017.

### **Workshops :**

- Two days workshop on power electronics converter design and pv modelling using MATLAB
- Two days workshop on mobile robotics
- One day workshop on PROTEUS software for power converter & controller and embedded system design
- Workshop on plc

### **Value Added Courses :**

- Our Department has organized value added course on “Embedded system Design” in the month of December 2017. Nearly 68 students from various years had been benefited from the course.
- Value added course on Innovative electrical and electronics by C.Tamil Venthan. Nearly 104 students attended it.

## Student activities

### Workshops

SL.NO	NAME OF THE STUDENT	YEAR/D EPT	NAME OF THE INSTITUTION	ATTENDED DATE
1	M.PADMA	II/EEE	TAGORE INSTITUTE OF ENGINEERING AND TECHNOLOGY	23.03.2018
2	S.NANDHINI	II/EEE	TAGORE INSTITUTE OF ENGINEERING AND TECHNOLOGY	23.03.2018
3	K.VISHAL DEEPAK	III/EEE	VIT UNIVERSITY,VELLORE	24.03.2018 to 25.03.2018
4	S.VETRIVEL	III/EEE	VIT UNIVERSITY,VELLORE	24.03.2018 to 25.03.2018
5	B.S.KARTHICK	III/EEE	GOVERNMENT COLLEGE OF ENGINEERING, SALEM	27.02.2018
6	P.AJITH	III/EEE	GOVERNMENT COLLEGE OF ENGINEERING, SALEM	27.02.2018
7	S.JOSEPH ARUN RAJ	III/EEE	GOVERNMENT COLLEGE OF ENGINEERING, SALEM	27.02.2018
8	S.HARIHARAN	III/EEE	GOVERNMENT COLLEGE OF ENGINEERING, SALEM	27.02.2018
9	BARATH KUMAR.K	III/EEE	GOVERNMENT COLLEGE OF ENGINEERING, SALEM	27.02.2018
10	V.PUHAZHENTH I	II/EEE	KPR INSTITUTE OF ENGINEERING AND TECHNOLOGY	24.02.2018
11	U.SIVASHANKA R	II/EEE	KPR INSTITUTE OF ENGINEERING AND TECHNOLOGY	24.02.2018
12	U.SHACHIN	II/EEE	KPR INSTITUTE OF ENGINEERING AND TECHNOLOGY	24.02.2018
13	G.S.RAGAVEND RA	II/EEE	KPR INSTITUTE OF ENGINEERING AND TECHNOLOGY	24.02.2018
14	S.JOYSHINI RACHEL	II/EEE	K.RAMAKRISHNAN COLLGE OF ENGINEERING	20.02.2018 to 21.02.2018
15	S.FAYAZ AHAMED	III/EEE	MEA,ENGINEERING COLLEGE	16.02.2018 to 17.02.2018

16	K.ARUNKUMAR	III/EEE	MEA ENGINEERING COLLEGE	16.02.2018 to 17.02.2018
17	M.MAHESHWARAN	III/EEE	MEA ENGINEERING COLLEGE	16.02.2018 to 17.02.2018
18	K.MANIKANDAN	III/EEE	MEA ENGINEERING COLLEGE	16.02.2018 to 17.02.2018
19	N.PATHMANABAN	III/EEE	K.RAMAKRISHNAN COLLGE OF ENGINEERING	14.02.2018 to 16.02.2018
20	N.SASIKUMAR	III/EEE	K.RAMAKRISHNAN COLLGE OF ENGINEERING	14.02.2018 to 16.02.2018
21	G.WINSTON	III/EEE	K.RAMAKRISHNAN COLLGE OF ENGINEERING	14.02.2018 to 16.02.2018
22	M.NARESH KUMAR	III/EEE	K.RAMAKRISHNAN COLLGE OF ENGINEERING	14.02.2018 to 16.02.2018
23	M.AHAMED ALI	III/EEE	KUMARAGURU COLLEGE OF TECHNOLOGY	05.02.2018
24	S.LANKESH	III/EEE	KUMARAGURU COLLEGE OF TECHNOLOGY	05.02.2018
25	P.BALACHAND HAR	III/EEE	KUMARAGURU COLLEGE OF TECHNOLOGY	06.02.2018
26	M.AHAMED ALI	III/EEE	KUMARAGURU COLLEGE OF TECHNOLOGY	05.02.2018
27	S.LANKESH	III/EEE	KUMARAGURU COLLEGE OF TECHNOLOGY	05.02.2018
28	P.BALACHAND HAR	III/EEE	KUMARAGURU COLLEGE OF TECHNOLOGY	05.02.2018
29	L.BASKAR	III/EEE	E.CELL IIT MADRAS	03.02.2018 to 04.02.2018
30	T.GOKULA KRISHNAN	III/EEE	E.CELL IIT MADRAS	03.02.2018 to 04.02.2018
31	R.AKILANDESH WARI	II/EEE	RATHINAM TECHNICAL CAMPUS	05.01.2018
32	S.POOJALAKSH MI	II/EEE	RATHINAM TECHNICAL CAMPUS	05.01.2018
33	S.JOYSHINI RACHEL	II/EEE	RATHINAM TECHNICAL CAMPUS	05.01.2018
34	S.KEERTHANA	II/EEE	RATHINAM TECHNICAL CAMPUS	05.01.2018
35	R.AKILANDESH WARI	II/EEE	RATHINAM TECHNICAL CAMPUS	06.01.2018

36	S.POOJALAKSHMI	II/EEE	RATHINAM TECHNICAL CAMPUS	06.01.2018
37	S.JOYSHINI RACHEL	II/EEE	RATHINAM TECHNICAL CAMPUS	06.01.2018
38	S.KEERTHANA	II/EEE	RATHINAM TECHNICAL CAMPUS	06.01.2018
39	M.PADMA	II/EEE	RATHINAM TECHNICAL CAMPUS	06.01.2018

### International conference :

SL. NO	NAME OF THE STUDENT	YEAR/ DEPT	NAME OF THE INSTITUTION	ATTENDED DATE
1	P.PAVITHRA	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
2	A.RENUKA DEVI	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
3	T.UMA NANDHINI	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
4	K.VASUMATHI NARAYANI	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
5	T.PRIYADARSINI	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
6	P.S. RAMYA	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
7	R.SELVA RAJESWARI	IV/EEE	JAWAHAR ENGINEERING COLLEGE CHENNAI	01.04.2018
8	M.SOWMIYA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
9	A.SINDHUJA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
10	M.SINDUJA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
11	A.UMAMAHESWARI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
12	A.PURUSHOTHAMAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
13	T.SMITH	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
14	K.SATHISH	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
15	J.RAMNATH	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018

16	D.PRAKASH	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
17	R.RAMYA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
18	B.NARMATHA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
19	SURAJ	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
20	S.RAMKUMAR	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
21	K.RAGAVENTHIRAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
22	G.SAKTHIDHASAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
23	A.MOKESWARAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
24	S.VELMURUGAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
25	A.SARAVANAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
26	S.MURUGAPPAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
27	S.MOHABOOB BEEVI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
28	R.LAVANYA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
29	T.GEETHANCHALI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
30	L.NAVEENA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
31	P.VINOTHA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
32	R.SANDHYA LAKSHMI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
33	M.SURYAA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
34	R.KIRUTHIKA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
35	G.JAYABHARATHI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
36	P.R.KAMALI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
37	R.MANJULA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
38	G.MAHESWARI	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018

39	E.KIRUTHIKA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
40	D.MUKILAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
41	D.SATHISH KUMAR	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
42	S.SURESHKUMAR	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
43	B.ARUN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
44	E.MITHUN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
45	P.MANIKANDAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
46	S.MANIKANDAN	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
47	S.KAVIYA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
48	G.KIRUTHIKA	IV/EEE	IDHAYA ENGINEERING COLLEGE FOR WOMEN	24.03.2018
49	P.JUDIT HYACINTH	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
50	S.ABINAYA	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
51	K.KEERTHANA	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
52	K.KIRUBASANKAR	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
53	J.ARUL SANTHOSH	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
54	P.ARAVINDH BALAJI	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
55	V.B.KARTHIK	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
56	G.V.JAIGANESH	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
57	S.KAMALNATH	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018

58	S.ARUN	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
59	K.GOPI	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
60	S.MADHAN	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
61	E.KIRAN KUMAR	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
62	P.JAYARAM	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
63	T.MAHARAJAN	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
64	A.MOHAMED ISMAIL	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
65	K.KAVIRAJAN	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
66	M.BALJI	IV/EEE	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	22.03.2018
67	K.PARAMESWARAN	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
68	T.SAMUEL CALEB	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
69	S.SANTHOSH	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
70	T.SURYA	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
71	S.MONICA	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
72	S.SARUMATHI	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
73	G.SATHANA	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
74	N.VARDHINI	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
75	R.HARINE	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
76	S.GOWTHAMI	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018



77	G.GEETHANJALI	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
78	K.SUSMITHA	IV/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
79	M.BINUJHA ANGELIN	III/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
80	M.EZHILMATHI	III/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
81	S.BHAVATHARANI	III/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
82	A.ATHIRSHTA LAKSHMI	III/EEE	SRI RAMAKRISHNA GROUP OF INSTITUTIONS	10.03.2018
83	K.GOPI	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
84	B.KIRAN KUMAR	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
85	S.MADHAN	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
86	P.JAYARAM	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
87	S.SHARMILA	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
88	R.KIRUBHA	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
89	G.AKTHAR SHEHANAZ	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
90	M.JAYA BARATHI	IV/EEE	PANDIAN SARASWATHI YADAV ENGINEERING COLLEGE	09.03.2018 to 10.03.2018
91	S.ISHWARYA LAKSHMI	II/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018
92	K.BALAKRISHNAN	II/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018
93	N.PAGURUDEEN	II/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018
94	M.PAVITHRA	IV/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018
95	R.BHUVANESHWARI	IV/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018



96	K.VINITHA	IV/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018
97	R.PATHMAVATHI	IV/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018
98	N.PAVITHRA	IV/EEE	SARANATHAN COLLEGE OF ENGINEERING	09.03.2018

### EXTRA CURRICULAR (TECHNICAL AND NON TECHNICAL)

S.NO	NAME	YEAR/DEPT	NAME OF THE INSTITUTION	EVENT NAME	ATTENDED DATE
1	K.KEERTHANA	IV/EEE	PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY	PROJECT EXPO	3/28/2018
2	S.JOYSHINI RACHEL	II/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
3	T.MAHARAJAN	II/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
4	A.MOHAMED ISMAIL	II/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
5	K.KAVIRAJAN	II/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
6	M.BALAJI	II/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
7	R.PATHMAVATHI	IV/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
8	R.BHUVANESHWARI	IV/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
9	N.PAVITHRA	IV/EEE	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018

10	K.VINITHA	IV/EE E	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
11	S.ARUN	IV/EE E	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
12	K.KISHORE BABU	IV/EE E	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
13	V.JAI GANESH	IV/EE E	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
14	S.KAMALNAT H	IV/EE E	SRM-TRP ENGINEERING COLLEGE,TRICHY	PROJECT CONTEST	23.03.2018
15	K.KIRUBASAN KAR	IV/EE E	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	PROJECT CONTEST	22.03.2018
16	J.ARUL SANTHOSH	IV/EE E	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	PROJECT CONTEST	22.03.2018
17	V.B.KARTHIC K	IV/EE E	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	PROJECT CONTEST	22.03.2018
18	P.ARAVINDH BALAJI	IV/EE E	AISHWARYA COLLEGE OF ENGINEERING & TECHNOLOGY	PROJECT CONTEST	22.03.2018
19	T.MAHARAJA N	IV/EE E	K.RAMAKRISHNAN COLLEGE OF ENGINEERING	PROJECT CONTEST	20.03.2018
20	A.MOHAMED ISMAIL	IV/EE E	K.RAMAKRISHNAN COLLEGE OF ENGINEERING	PROJECT CONTEST	20.03.2018
21	M.BALAJI	IV/EE E	K.RAMAKRISHNAN COLLEGE OF ENGINEERING	PROJECT CONTEST	20.03.2018
22	K.KAVIRAJAN	IV/EE E	K.RAMAKRISHNAN COLLEGE OF ENGINEERING	PROJECT CONTEST	20.03.2018
23	M.RAMALAKS HMI	III/EE E	NATIONAL INSTITUTE OF TECHNOLOGY	SMART GRIDS WORKSHOP	15.02.2018 to 18.02.2018

24	M.RAMALAKS HMI	III/EE E	NATIONAL INSTITUTE OF TECHNOLOGY	DHRUVA	15.02.2018 to 18.02.2018
25	HAMSHA VARSHNI P G	II/EEE	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	FRENCH LANGUAGE COURSE LEVEL A1	2017-2018
26	PADMA M	II/EEE	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	FRENCH LANGUAGE COURSE LEVEL A1	2017-2018
27	B.S.KAARTHIK	III/EE E	NATIONAL INSTITUTE OF TECHNOLOGY	SCADA	29.01.2018 to 30.01.2018
28	P.AJITH	III/EE E	NATIONAL INSTITUTE OF TECHNOLOGY	SCADA	29.01.2018 to 30.01.2018
29	S.GOKULNAT H	III/EE E	NATIONAL INSTITUTE OF TECHNOLOGY	SCADA	29.01.2018 to 30.01.2018
30	S.HARIHARAN	III/EE E	NATIONAL INSTITUTE OF TECHNOLOGY	SCADA	29.01.2018 to 30.01.2018
31	R.BHARATHIP RIYA	III/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
32	R.J. DHEEPAK	IV/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
33	N.B.BHARATH	IV/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
34	R.G.HITESH GURU	IV/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
35	S.GOPALA KRISHNAN	IV/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
36	S.KARTHICK	III/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
37	L.BHASKAR	III/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
38	T.GOKULA KRISHNAN	III/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018

39	S.JOSHUA SMITH	III/EE E	K.RAMAKRISHNAN COLLEGE OF TECHNOLOGY	TECH EXPO	23.01.2018
----	----------------	-------------	--	-----------	------------

### EXTRA CURRICULAR\_(SPORTS)

S. N O	NAME	YEAR/D EPT	NAME OF THE INSTITUTION	EVENT NAME	ATTENDED DATE	POSITION WON/ PARTICIPATION
1	T.SUMEET	IV/EEE	KRCT	10000 M	07.04.2018	III PRIZE
2	P.PARKAVAN	III/EEE	KRCT	100M HURDLES	07.04.2018	II PRIZE
3	R.SIRANJEEVI	III/EEE	KRCT	4*400 M R	07.04.2018	II PRIZE
4	R.SIRANJEEVI	III/EEE	KRCT	5000 M	07.04.2018	participation
5	SUDHA	III/EEE	KRCT	BASKET BALL	07.04.2018	I PRIZE
6	R.SIRANJEEVI	III/EEE	KRCT	HAND BALL	07.04.2018	I PRIZE
7	T.GOKULA KRISHNAN	III/EEE	KRCT	800M	07.04.2018	participation
8	S.GOKUL	III/EEE	KRCT	LONG JUMP	07.04.2018	III PRIZE

### FUNDED PROEJCTS

Almost seven different teams applied for fund for their respective projects and proposals to DST, TANS CST, ONGC, AICTE.

From that one team was sanctioned and fund of rupees 10,000 was sanctioned for their project proposal.

## EXTRA CURRICULAR (CULTURALS)

S.NO	NAME	YEAR/DEPT	NAME OF THE INSTITUTION	EVENT NAME	ATTENDED DATE	POSITION WON/PARTICIPATION
1	G.S.RAGAVENDRA	II/EEE	GRAMIYA KALAIGALUM NAVEENA NADANAMUM	FOLK	29.12.2017-30.12.2017	I PRIZE
2	N.B.BHARATH	IV/EEE	GRAMIYA KALAIGALUM NAVEENA NADANAMUM	FOLK	29.12.2017-30.12.2017	I PRIZE
3	G.SATHANA	IV/EEE	GRAMIYA KALAIGALUM NAVEENA NADANAMUM	FOLK	29.12.2017-30.12.2017	I PRIZE
4	BALAJI	III/EEE	TAMIL NADU NATIONAL LAW COLLEGE	WESTERN	02.03.2018-04.03.2018	I PRIZE

## JOURNAL PUBLICATIONS BY STUDENTS

S.NO	Name of the Student	Name of the Research paper	Year of publication	Name of the Journal
1	R.Harine G.Akthar Shehanaz S.Gowthami	Fault detection and diagnosis system for a 19 level cascaded multilevel Inverter using ANN	2017	IJSRST
2	R.Sneha G.Vijiyalakshmi D.Nikethan	Performance analysis of PV based boost converter using PI controller with PSO Algorithm	2017	JST
3	R.Sooriya Priya Dharshini R.Siranjeevi S.Joshua Smith	A novel reduced switch multilevel inverter using FPGA	2017	JST
4	D.Ragavan M.Maheshwaran R.Bharathi Priya	Fuel cell based BLDC motor drive	2017	JST

5	M.Ramalakshmi J.Raxsana	Design of high efficiency converter fed induction motor using hybrid renewable energy system	2017	IJSRST
6	P.R.Kamali K.Vinitha N.Pavithra R.Pathmavathi	CUK-SEPIC fused mppt converter using inverted sine PWM technique for a grid connected hybrid renewable energy system	2017	IJSRST
7	R.Navaneeth M.Naresh Kumar R.Vinoth	Solar PV Array fed BLDC Motor using Zeta Converter for Water Pumping Applications	2017	JST
8	R.Navaneeth G.Gokulakrishnan	Effective power utilization strategy of fuel cell system using FSTP Sepic Inverter	2017	JST
9	G.Irfan M.Mahalingam S.Praveen B.Pragadesh	Implementation of vertical axis wind turbine using permanent magnet synchronous generator	2017	IJMTST
10	R.Priyanka S.vinitha D.Yalini R.Yamuna	Smart grid system for water pumping and domestic application using Arduino controller	2017	IJMTST
11	T.Uma nandhini K.Keerthana	A Novel zeta converter with Pi controller for power factor correction in Induction motor	2017	IJSRST

## PLACEMENT RECORD (BATCH 2014 – 18)

I am very delighted to share our strong placement record of our Fourth batch Engineers. On behalf of our placed students, I thank our Management, Executive Director, Principal, Trainers of Placement department, HOD & faculties of our department for their great support & Guidance. Also I congratulate all the students who got placed in various companies for their bright future



*-Mr.A.Anton Amala Praveen M.E*

*Placement in charge / EEE*

1	ABINAYA.S	ILM
2	ARUN.B	AAGNA
3	GEETHANCHALI.T	MAGUS/SUTHERLAND
4	GOBINATH.M	AAGNA
5	JAYABHARATHI.G	AAGNA/E CARE
6	JUDIT HYACINTH.P	ILM/VEE TECHNOLOGIES
7	KARTHICK.V.B	TECH MAHINDRA/SHREE ABIRAMI
8	KAVIYA.S	TECH MAHINDRA/AMAZON/ILM/INFOSYS
9	KIRUBASANKAR.K	WINDCARE
10	KIRUBHA.R	TECH MAHINDRA/SHREE ABIRAMI/RAISING STARS
11	KIRUTHIGA.R	AAGNA/E CARE/SUTHERLAND
12	KIRUTHIKA.G	SUTHERLAND/ILM
13	LAVANYA.R	AAGNA
14	MEHABOOB BEEVI.S	JUST DIAL
15	SHARMILA.S	MAGUS
16	P.JAYARAM	JUST DIAL

17	K.KEERTHANA	AAGNA
18	NARMADHA.B	SUTHERLAND
19	NIVETHA.R	E CARE
20	PAVITHRA.P	CAPGEMINI
21	PRIYADARSINI.T	AAGNA/[24/7]
22	PRIYANKA.R	TECH MAHINDRA
23	RAJBABU.B	AAGNA
24	RAMKUMAR.S	AAGNA
25	RAMYA.P.S	SUTHERLAND
26	SARAVANAN.A	AAGNA
27	SATHISHWARAN.K	AAGNA
28	SELVA RAJESHWARI.R	[24/7]
29	SHAHUL HAMEED.M	AAGNA
30	SINDUJA.M	E CARE/SUTHERLAND
31	SURAJ.	SUTHERLAND
32	SURESHKUMAR.S	WINDCARE
33	SURYAA.M	AAGNA
34	VASUMATHI NARAYANI.K	AAGNA
35	JAI GANESH.G.V	JUST DIAL
36	HITESH GURU.R.G	BRIGHT CALL CENTRE
37	SURESH.S	BRIGHT CALL CENTRE
38	UMA NANDHINI.T	BRIGHT CALL CENTRE
39	MAKESWARAN.A	BRIGHT CALL CENTRE



## Achievements by Faculties - Academic Year (2017 - 2018) :

### 100% Results

- Mr. KARTHIKEYAN in “DISCRETE TIME SIGNAL PROCESSING” for the 4<sup>th</sup> semester U.G.exam.
- MRS. LILLY RENUKA in “PROTECTION AND SWITCHGEARS” for the 7<sup>th</sup> semester UG exam
- MR.ANTON AMALA PRAVEEN in “PRINCIPLES OF MANAGEMENT” for the 7<sup>th</sup> semester UG exam
- Dr. Nazar Ali received Green9 Energy contributor award.

### FACULTIES CO – CURRICULAR ACTIVITIES (2017 – 2018):

### SEMINAR

S.No	Faculty Name	Title of Seminar	Attended Date		Venue
			From	To	
1	B.Karthikeyan	Development of Smart Inverters for Photovoltaics and Energy Storage	12/20/2017	12/20/2017	TRP Engineering College
2	A.Arunvikram	Development of Smart Inverters for Photovoltaics and Energy Storage	12/20/2017	12/20/2017	TRP Engineering College
3	R.jaiganesh	Biomass Energy -Awareness on waste to Energy conversion Technologies	9/14/2017	9/15/2017	Vellammal college of engineering and technology
4	A.Anton Amala Praveen	Biomass Energy -Awareness on waste to Energy conversion Technologies	9/14/2017	9/15/2017	Vellammal college of engineering and technology
5	A.Arunvikram	Emerging Technologies & Recent Research on Power electronics and its Control	9/8/2017	9/9/2017	KPR Institute of Engineering and Technology ,Coimbatore
6	R.Ramkumar	Emerging Technologies & Recent Research on Power electronics and its Control	9/8/2017	9/9/2017	KPR Institute of Engineering and Technology ,Coimbatore

7	C.Kalaavalli	Role of Power Electronic Converters in Distributed Generation and Microgrid	8/31/2017	9/1/2017	TRP Engineering College
8	N.Gowri	Role of Power Electronic Converters in Distributed Generation and Microgrid	8/31/2017	9/1/2017	TRP Engineering College
9	R.Jaiganesh	Siemens Education Day	7/7/2017	7/7/2017	Hotel Sangam, Trichy
10	L.Nagarajan	Siemens Education Day	7/7/2017	7/7/2017	Hotel Sangam, Trichy

### NATIONAL WORKSHOP

S. No	Faculty Name	Title of Workshop	Attended Date		Venue
			From	To	
1	R.Jaiganesh	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
2	S.Murugesan	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
3	S.Arunkumar	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
4	L.Nagaragan	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
5	R.Ramkumar	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
6	A.Arunvikram	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
7	A.T.Sankara Subramanian	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
8	C.Kalavalli	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT

9	N.Gowri	Research Methodology and Project Writing organized by NAAC(IQAC)	10/7/2017	10/7/2017	KRCT
10	P.Sabarish	Intelligent and soft computing techniques using MATLAB	8/22/2017	8/23/2017	Sri Ramakrishan Engineering College
11	A.T.Sankara Subramanian	Intelligent and soft computing techniques using MATLAB	8/22/2017	8/23/2017	Sri Ramakrishan Engineering College
12	S.Arunraj	Controller And System design Using PIC Micro Controller	8/17/2017	8/19/2017	Mepco Schlenk Engineering College
13	T.Vishnu Kumar	Controller And System design Using PIC Micro Controller	8/17/2017	8/19/2017	Mepco Schlenk Engineering College
14	S.Murugesan	Controller And System design Using PIC Micro Controller	8/17/2017	8/19/2017	Mepco Schlenk Engineering College
15	R.Jaiganesh	Intellectual Property Rights & Innovations	8/16/2017	8/16/2017	Indra Ganesan College of Engineering
16	L.Nagaragan	Recent Trends in Solar Energy and Instrumentation	6/9/2017	6/11/2017	NIT, Trichy

## FDP

S. No	Faculty Name	Title of FDP Training	Attended Date		Venue
			From	To	
1	S.Arunraj	Basic Electrical, Electronics and Instrumentation Engineering	12/27/2017	12/1/2017	Panimalar Engineering College
2	V.Suresh kumar	Basic Electrical, Electronics and Instrumentation Engineering	12/27/2017	12/1/2017	Panimalar Engineering College
3	M.D.Udaya kumar	Potential and Challenges for Integrating Renewable Energy for Smart City Implementation	12/3/2017	12/16/2017	PSG College of Technology, Coimbatore
4	T.Vishnu Kumar	Design and development of feedback controllers for power electronics converters based systems	11/23/2017	11/25/2017	Karpagam College of Engineering
5	N.Gowri	Design and development of feedback controllers for power electronics	11/23/2017	11/25/2017	Karpagam College of Engineering
6	R.Lilly Renuka	Teaching Techniques	10/11/2017	10/12/2017	K.Ramakrishnan College of Technology
7	V.Suresh kumar	Teaching Techniques	10/11/2017	10/12/2017	K.Ramakrishnan College of Technology
8	C.Kalaavalli	'LaTex-Hands on Training", organized by ISTE	9/8/2017	9/9/2017	K.Ramakrishnan College of Technology
9	B.karthikeyan	'LaTex-Hands on Training", organized by ISTE	9/8/2017	9/9/2017	K.Ramakrishnan College of Technology
10	M.D.Udaya kumar	'LaTex-Hands on Training", organized by ISTE	9/8/2017	9/9/2017	K.Ramakrishnan College of Technology
11	L.Nagaragan	'LaTex-Hands on Training", organized by ISTE	9/8/2017	9/9/2017	K.Ramakrishnan College of Technology
12	M.D.Udaya kumar	Two Week ISTE STTP on "Electric Power System	7/10/2017	7/15/2017	Sastra University ,Thanjavur

13	P.Sabarish	Two Week ISTE STTP on "Electric Power System	7/10/2017	7/15/2017	Sastra University ,Thanjavur
14	R.Lilly renuka	Protection & Switchgear	22.06.2017	23.06.2017	K.Ramakrishnan College of Engineering
15	R.Jai ganesh	Protection & Switchgear	22.06.2017	23.06.2017	K.Ramakrishnan College of Engineering
16	P.Sabarish	Power System Analysis	6/19/2017	6/20/2017	K.Ramakrishnan College of Engineering
17	M.D.Udaya kumar	Power System Analysis	6/19/2017	6/20/2017	K.Ramakrishnan College of Engineering
18	R.Ramkumar	Solar Photovoltaic & solar Thermal Applications	6/19/2017	6/23/2017	Mepco Schlenk Engineering
19	A.Arun Vikram	Solar Photovoltaic & solar Thermal Applications	6/19/2017	6/23/2017	Mepco Schlenk Engineering
20	L.Nagaragan	Linear Integrated circuitits	15.06.2017	16.06.2017	K.L.N College of engg

### International Conference

S.No	Faculty Name	Title of Conference	Attended Date		Venue
			From	To	
1	S.Arunraj	Intelligent Sustainable Systemes(ICISSB 2017)	08-012-2017	08-012-2017	SCAD Institute of Technology
2	V.Suresh Kumar	Intelligent Sustainable Systemes(ICISSB 2017)	08-012-2017	08-012-2017	SCAD Institute of Technology
3	R.Jaiganesh	Precision, Meso, Micro and Nano Engineering	08-012-2017	08-012-2017	Indian Institute of Technology Madras
4	T.Ramkumar	Precision, Meso, Micro and Nano Engineering	08-012-2017	08-012-2017	Indian Institute of Technology Madras
5	S.Kodeeswaran	Precision, Meso, Micro and Nano Engineering	08-012-2017	08-012-2017	Indian Institute of Technology Madras

6	A.Anton Amala Praveen	Renewable Energy and Sustainable Environment	7/21/2017	7/21/2017	Dr.Mahalingam College of Engineering & technology
7	L.Nagarajan	Renewable Energy and Sustainable Environment	7/21/2017	7/21/2017	Dr.Mahalingam College of Engineering & technology
8	M.D.Udayakumar	Intelligent Computing & control	6/23/2017	6/23/2017	Karpagam College of Engineering

## **Patent of faculty which got approval**

### **Inventors :**

Sankara Subramanian A, Assnt Prof, M.E,(Ph.D)

R.Jai Ganesh, Assnt Prof, M.E

### **Provisional application no and date :**

201841015559 and 24/4/18

### **Title :**

“System for irrigating soil using renewable energy based water pumps”

## FACULTY PUBLICATION

S.NO	SCHOLAR NAME	NO OF ARTICLES PUBLISHED IN INTERNATIONAL JOURNAL	CITATIONS	H - INDEX
1	NAZAR ALI	29	53	4
2	JAI GANESH R	8	19	3
3	R.RAMKUMAR	14	19	3
4	KALAVALLI C	5	14	2
5	SABARISH P	4	10	2
6	UDAYA KUMAR M D	4	4	1
7	S.MURUGESAN	7	4	1
8	SANKARA SUBRAMANIAN A.T	2	4	1
9	KARTHIKEYAN B	2	3	1
10	L NAGARAJAN	5	2	1
11	ARUN VIKRAM A	1	2	1
12	KODEESWARAN S	2	1	1
13	RAM KUMAR T	1	1	1
14	ARUNRAJ S	2	1	1
15	VISHNUKUMAR T	3	1	1
16	ANTON AMALA PRAVEEN A	2	1	1
17	V. SURESH KUMAR	4	1	1

## SPECIAL ACCOMPLISHMENTS :

### BUSINESS ENGLISH CERTIFICATION

S.No	Name	Level	score
1	M KISHORE	Council of Europe Level B1	149
2	S HARIHARAN	Council of Europe Level B1	149
3	ARKO BISWAS	Pass at Grade C	165
4	N PAGURUDEEN	Council of Europe Level B1	147
5	S GOKUL NATH	Council of Europe Level B1	143
6	DRISHYA	Pass at Grade C	161
7	S JOSEPH ARUN RAJ	Council of Europe Level B1	143
8	BHARATHI MAHADEVAN	Council of Europe Level B1	152
9	ABDUL WASIM	Council of Europe Level B1	140
10	GOKULA KRISHNAN	Council of Europe Level B1	151
11	L BHASKAR	Council of Europe Level B1	146
12	GOKUL	Council of Europe Level B1	141
13	JOSHUA SMITH	Pass at Grade C	164
14	KARTHICK	Council of Europe Level B1	146
15	BARATHKUMAR	Council of Europe Level B1	141
16	SOORIYA PRIYA DHARSHINI	Council of Europe Level B1	153
17	R SNEHA	Council of Europe Level B1	156
18	G SARAH BLESSY	Council of Europe Level B1	156
19	NANDHITHA	Council of Europe Level B1	146
20	M RAMALAKSHMI	Council of Europe Level B1	157
21	NAVANEETH	Pass at Grade C	166
22	RAMYA	Council of Europe Level B1	158
23	G WINSTON	Council of Europe Level B1	145



**Heartily congratulations** to Naveen kumar for representing INDIA in handball.



<b>S.no</b>	<b>Event held at</b>	<b>Representing</b>	<b>Prize won</b>
1	Madhya Pradesh	Tamilnadu	Gold
2	Goa	Tamilnadu	Gold
3	Nepal	India	Silver

### **IAENG membership**

The International Association of Engineers (IAENG) is a non-profit international association for the engineers and the computer scientists. IAENG was founded by a group of engineers and computer scientists in 1968, originally as a private club network for its founding members. Later, with the efforts from its members, IAENG membership became open to all the members in the engineering and computer science community. Nowadays, the IAENG members include research center heads, faculty deans, department heads, professors, research scientists/engineers, experienced software development directors and engineers, and university postgraduate and undergraduate students etc., from over one hundred different countries.

94 students from our department are members of IAENG.

## IEEE

The Institute of Electrical and Electronics Engineers (IEEE) is a professional association. Its objectives are the educational and technical advancement of electrical and electronic engineering, telecommunications, computer engineering and allied disciplines. The IEEE provides learning opportunities within the engineering sciences, research, and technology.

### Chair Persons:

1. D.RAGAVAN                      VICE CHAIRMAN (IEEE STUDENT BRANCH)
2. U.K.DINESH                      TREASURER (IEEE STUDENT BRANCH)
3. R.SOORIYA PRIYADHARSHINI    SECRETARY (IEEE WOMEN IN ENGINEERING)

### Office Bearers:

<u>S.No</u>	<u>Name</u>	<u>Year</u>
<u>1</u>	T.GOKULA KRISHNAN	IV-EEE
<u>2</u>	M.NARESH KUMAR	IV-EEE
<u>3</u>	R.NAVANEETH	IV-EEE
<u>4</u>	M.RAMALAKSHMI	IV-EEE
<u>5</u>	R.SNEHA	IV-EEE
<u>6</u>	M.SOWNDARYA	III-EEE

### Volunteers:

<u>SNo</u>	<u>Name</u>	<u>Year</u>
1	P.BALACHANDHAR	IV EEE
2	B.DINESHBABU	IV EEE
3	R.VINOTH	IV EEE
4	C.PRAVEEN FERNANDES	IV EEE
5	L.BASKAR	IV EEE
6	V.VIVEKDEV	IV EEE
7	S.JOSHUA SMITH	IV EEE
8	V.PUHAZHENTI	III EEE
9	S.ISHWARYALAKSHMI	III EEE
10	U.SIVASHANKAR	III EEE
11	K.PADMASHREE	III EEE
12	U.SACHIN	III EEE
13	V.PUTHUMAINATHAN	III EEE

## Students Club



### **Innovation centre**

It is a student organized club maintained in department of EEE. The main motive of Innovation centre is to bring out various talents of students and make them realize the difference between academics and reality in industries. It also brings out the leadership qualities from students so that they can shine in unique way.

Almost 85 students actively take part in innovation centre. We have few sub teams namely

- Core team
- Placement club
- Event team
- Project team

### **ENERGY CONSERVATION SOCIETY**

Energy Conservation Society (ECS) is a premier non governmental voluntary organization committed to the cause of promoting Energy Conservation Environment Protection and Sustainable Development in the country. ECS was formed on July 8 1992 at Thiruvananthapuram Kerala and has now more than 3000 nos. of life Members from among the people of all walks of life, all over India more than 10,000 nos., of student members as volunteers.

Almost 174 students actively take part in Energy Conservation Society.



Few innovation centre members who volunteered in TECH EXPO

## ELECTRA DYNAMO

A team was formed in the year 2017 consisting of 30 members from our department for participating in solar events like NSVC, ISVC, SUVC, ESVC. In these events students work together in creating a solar powered vehicle with the guidance of Asst. Prof L.Nagarajan, M.E,(Ph.D).



**ELECTRA**  
**DYNAMO**

### OBJECTIVES:

- To create an economical vehicle operating completely on solar power.
- To achieve mobility without dependency on fossil fuels.
- To provide an effective solution to the global warming and increased pollution levels



## STUDENTS CORNER

### TECHNICAL ARTICLES

### LASER SECURITY ALARM.

#### Required Electronic Components

S No	Components	Range	Quantity
1	Buzzer	-	1
2	DC voltage supply	9v	1
3	Resistor	100 ohm	3
4	Light emitting diode (LED)	-	1
5	LDR	-	1
6	Transistor	BC548	2
7	Laser Diode	-	1

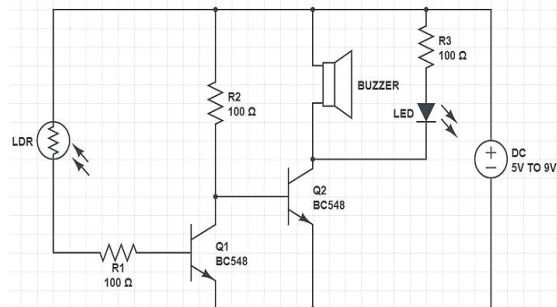
#### Circuit Diagram & Construction

The components were connected as per the diagram at the particular ranges and the DC (9v) supply is given to the circuit, The LIGHT DEPENDENT RESISTOR (LDR) is used to absorb the light signal from the LASER DIODE.

The LDR is connected to the base of the BC547 Transistor with a resistance and other end is connected with the DC supply, the anode of the L.E.D is connected to the resistor and the cathode connected to the collector of the transistor.

The buzzer is connected in the same way of the LED connection and the positive terminal of the DC supply is connected with the resistors, buzzer and LDR then the negative terminal is connected with the Emitter of BC548 transistor and the LDR continuously absorbs the light signal from the laser diode.

The BUZZER and the LED will not react while the LDR absorbs the light signal which means the circuit is in open state, if the light signal is disconnected by any disturbance the LED will start glowing and the BUZZER start to react by producing sound which means the circuit is in closed state.





## Security system

This circuit is used as a security system, it can be a security for jewelries in shops and it can be used in restricted areas for security alarm facilities and also it can be use in many ways in many areas.

**JEGADEESWARAN.R &  
HARISHWARAN.N.K(II EEE A)**

## Multi-Power Supply Using 4 Different Sources For No Break Power Supply

The project is designed to automatically supply continuous power to a load through one of the four sources of supply that are: solar, mains, generator, and inverter when any one of them is unavailable. Four switches are used for four respective sources. These are connected to a microcontroller of 8051 family that provides input signals to it. Whenever a switch is pressed it shows the absence of that particular source. A relay driver is used that receives microcontroller generated output and switches that particular relay to provide continuous power supply. A lamp is used as a load for demonstration purpose which draws power from main. When main fails to supply power, automatically next available source is used say inverter. If inverter fails then the next one is used and so on. An LCD is also used to display which source is being currently used for power supply.

Therefore, this project provides an effective solution to provide an alternative power supply during frequent power cuts.

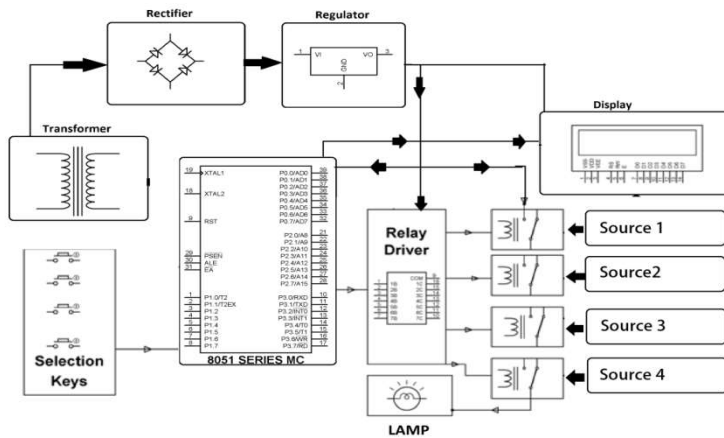
### Hardware Specifications:

- AT89S52(8051 Microcontroller)
- Relay
- Crystal oscillator
- Voltage regulator IC
- Relay driver IC
- Resistor
- Capacitor
- Transistor
- Diode
- Cables and connectors
- PCB
- LED'S
- Transformer
- Push button
- Lamp

### Software Specifications:

- Keil  $\mu$ Vision ID
- MC programming language embedded:C

## BLOCK DIAGRAM:



**R.POONGUZH**

**III EEE A**

## Virtual Reality

Virtual reality draws on multiple disciplines, but in terms of providing a sensory experience that maps effectively to “real life,” electrical engineering is crucial. The earliest VR technologies consisted of a headset with gloves as an input device, rendering the user mostly stationary. Positional tracking is now making VR more interactive.



What differentiates VR from an ordinary computer experience (using your PC to write an essay or play games) is the nature of the input and output. Where an ordinary computer uses things like a keyboard, mouse, or (more exotically) speech recognition for input, VR uses sensors that detect how your body is moving. And where a PC displays output on a screen (or a printer), VR uses two screens (one for each eye), stereo or surround-sound speakers.

**S.Priyanka**

**III EEE B**



# GRAPHANE

## The next wonder material

There is a new wonder material in town that might change our future. Imagine a coffee cup that streams the day's headlines in real time. Or a cooking pot that can detect the presence of *E. coli* bacteria that could make you sick. Or a television screen that is as flexible and thin as a piece of paper. All of these applications could be a reality if the wonder material, named graphene, lives up to its hype.

## Chicken wire made of carbon

Graphane rocked the world of chemistry in 2004 when scientists discovered that it had remarkable properties: It conducted electricity better than any other common substance, it was the thinnest known material—only one-atom thick—and it was stronger than steel!

After all, carbon is one of the most common and most familiar of the known chemical elements, so scientists were surprised to find that this new form of carbon had such amazing properties.

Carbon comes in many crystalline forms, called allotropes, the most well-known being diamond and graphite. Allotropes are different forms of the same element with different bonding arrangements between atoms, resulting in structures that have different chemical and physical properties. The way atoms are connected to each other in solid materials has a huge impact on their overall properties.

A diamond and a piece of coal are so different that you would never guess that they are both made of the same element—carbon. Diamond is a hard and transparent mineral that is ejected to the surface from deep within the Earth's interior through volcanic eruptions, while graphite is a black and lightweight material extracted from coal.

In diamond, each carbon atom is connected to four other carbons. This is a very strong arrangement that makes diamond one of the hardest known materials. In graphite, each atom is linked to three others in layers of hexagonal (six-sided) shapes that look like chicken wire. The bonds within the hexagonal sheets are strong, but each layer is only weakly attracted to the next, which allows the layers to slip by one another.

In 2004, Andre Geim and Konstantin Novoselov, two chemists at the University of Manchester, United Kingdom, used this property to produce samples of graphene and discover its remarkable properties. They used sticky tape to separate the layers of carbon in graphite. To get an idea of how their technique worked, think of pressing sticky tape onto a piece of graphite and pulling it away, leaving the sticky surface covered with graphite flakes. Then, press the sticky tape to itself and pull it apart. Repeat, and after a few rounds of this, some flakes on the tape will be only a single one-atom thick layer pure graphene.

Sticky tape can be used to peel off powdered graphite, leaving a single layer of graphene. The initial samples of graphene were very small only a couple of square millimeters in size each but large enough to test. Because graphene is only one-atom thick, it is considered to be a two-dimensional material, the first

example of such a thing in the real world. Despite being the thinnest material known to exist, it is also the strongest material ever tested 100 times stronger than steel.

Even more amazing: Electrons do not scatter as much when they move as they do in other materials, such as silicon. This led researchers to make graphene-based transistors that are twice as fast as traditional silicon transistors, which could make computers run much faster.

### **Flexible solar panels**

Graphene has sparked the interest of engineers who are trying to make new, lightweight, and flexible solar panels that could be used to cover the outside surface of a building, in addition to the roof which is already being used.

A new type of solar cell that consists of a photovoltaic cell sandwiched between two sheets of graphene. When light crosses the graphene and is absorbed by the silicon, the photons that make up the light excite electrons in the silicon, which migrate to the graphene sheet at the negative contact and move through the graphene structure toward an external circuit that produces electricity.

Graphene is nearly transparent to light not only to visible light but also to other forms of electromagnetic radiation, including ultraviolet and infrared light. Graphene absorbs only 2% of the light falling on it, whether it is ultraviolet, infrared, or all of the wavelengths in between. Combine this with graphene's ability to conduct electricity, and you have very efficient, electrical conductors that are transparent, thin, flexible, and cheap.

This new type of solar panel is currently under development and consists of organic photovoltaic cells sandwiched between sheets of graphene . A photovoltaic cell is a small device that converts the sun's energy into electricity.

When a photovoltaic cell is sandwiched between two sheets of graphene, light crosses the sheets of graphene and hits the photovoltaic cell. As a result, the photovoltaic cell generates electricity, which is carried by the sheets of graphene.

These lightweight and flexible solar panels could be molded to fit an automobile body or be wrapped around furniture or clothing. When added to any surface, they could collect light and produce electricity.

Solar panels on these backpacks can charge your mobile phone or iPod. In the future, flexible solar panels may even charge your laptop.

### **Foldable cell phones**

Until recently, most electronic devices were controlled by pushing buttons, typing on a keyboard, or using a mouse. Today, most cell phones and tablet PCs have touch screens that allow the user to make selections by touching icons or letters directly on the display screen.

The basic idea of how most of these devices work is simple. A layer that **stores electrical charge** is placed on the glass panel of the screen. When a user touches the screen with his or her finger, or with

a stylus pen, some of the charge is transferred to the user, so the charge on the layer decreases. This decrease is measured by sensors located at each corner of the screen, and this information is relayed to a processor inside the device, which determines what kind of action to take.

All of this is possible because these devices use screens that have thin and transparent coatings that are conductive and can hold a charge. Most portable devices today have screens that are coated with a conductive layer made of indium tin oxide. But this material is brittle, so it is layered on glass to protect and support it. This leads to thick and inflexible displays.

Touch screens made with graphene as their conductive element could be printed on thin plastic instead of glass, so they would be light and flexible, which could make cell phones as thin as a piece of paper and foldable enough to slip into a pocket. Also, because of graphene's incredible strength, these cell phones would be nearly unbreakable. Scientists expect that this type of touch screen will be the first graphene product to appear in the marketplace.

In another method, the graphite is dissolved in a solvent and then sprayed in thin layers using inkjet-type printers. The solvent evaporates, and the graphene remains.

But none of these methods have been perfected,

As yet. The race is on to be the first to show whether this wonder material can live up to its potential!



**S.MANIMEGALAI**

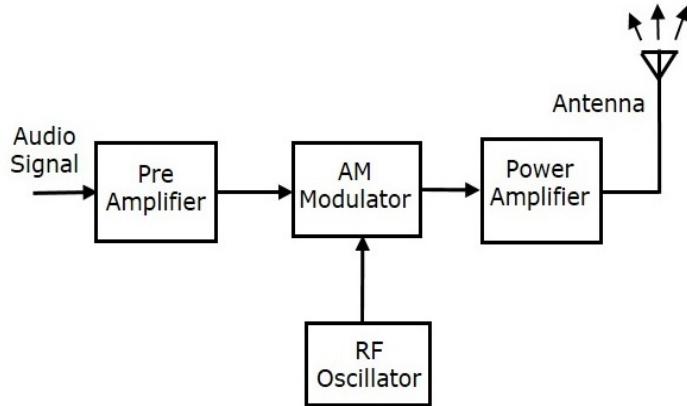
**IV EEE A**

## **FM TRANSMITTER**

### **What is an FM Transmitter?**

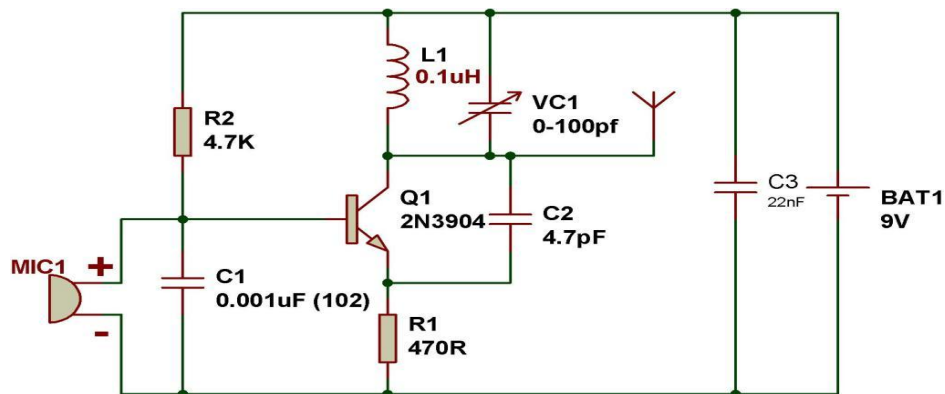
- The FM transmitter is a low power transmitter and it uses FM waves for transmitting the sound, this transmitter transmits the audio signals through the carrier wave by the difference of frequency.
- The FM transmitter is a single transistor circuit. In the telecommunication, the [\*frequency modulation \(FM\)\*](#) transfers the information by varying the frequency of carrier wave according to the message signal.
- Generally, the FM transmitter uses VHF radio frequencies of 87.5 to 108.0 MHz to transmit & receive the FM signal.
- This transmitter accomplishes the most excellent range with less power. The performance and working of the wireless audio transmitter circuit is depends on the induction coil & variable capacitor. This article will explain about the working of the FM transmitter circuit with its applications.

## Block diagram



- The following image shows the block diagram of the FM transmitter and the required parts of the FM transmitter are; audio signal, pre amplifier, AM modulator, RF oscillator, power amplifier and antenna.
- There are two frequencies in the FM signal, first one is carrier frequency and the other one is audio frequency. The audio frequency is used to modulate the carrier frequency. The FM signal is obtained by differing the carrier frequency by allowing the AF. The FM transmitter consists of oscillator to produce the RF signal.

## Circuit Diagram



## Working of FM Transmitter Circuit

- The following circuit diagram shows the FM transmitter circuit and the required electronic components for this circuit is the power supply of 9V, resistor, capacitor, trimmer capacitor, inductor, mic, transmitter, and antenna.

- Let us consider the microphone to understand the sound signals and inside the mic there is a presence of capacitive sensor. It produces according to the vibration to the change of air pressure and the AC signal.
- The formation of the oscillating tank circuit can be done through the transistor of 2N3904 by using the inductor and variable capacitor. The transistor used in this circuit is an NPN transistor used for general purpose amplification.
- If the current is passed at the inductor L1 and variable capacitor then the tank circuit will oscillate at the resonant carrier frequency of the FM modulation. The negative feedback will be the capacitor C2 to the oscillating tank circuit.
- The tank circuit is derived from the LC circuit to store the energy for oscillations. The input audio signal from the mic penetrated to the base of the transistor, which **modulates the LC tank circuit** carrier frequency in FM format.
- The variable capacitor is used to change the resonant frequency for fine modification to the FM frequency band. The modulated signal from the antenna is radiated as radio waves at the FM frequency band and the antenna is nothing but copper wire of 20cm long and 24 gauge.
- In this circuit the length of the antenna should be significant and here you can use the 25-27 inches long copper wire of the antenna.

### **Application of Fm Transmitter**

- The FM transmitters are used in the homes like sound systems in halls to fill the sound with the audio source.
- These are also used in the cars and fitness centers.
- The correctional facilities have used in the FM transmitters to reduce the prison noise in common areas.

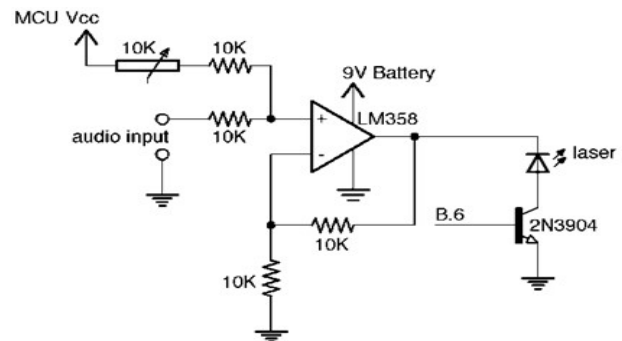
**Kajendiran G  
IV EEE A**

## Laser Audio Transmitter

- A mono-axial transmitter/receiver setup that converts an analog audio signal, via standard 3.5mm jack, and transmits it via a laser to a receiver, which converts the signal back into audio.
- The end result is a wireless audio signal that cannot be overheard by other devices.

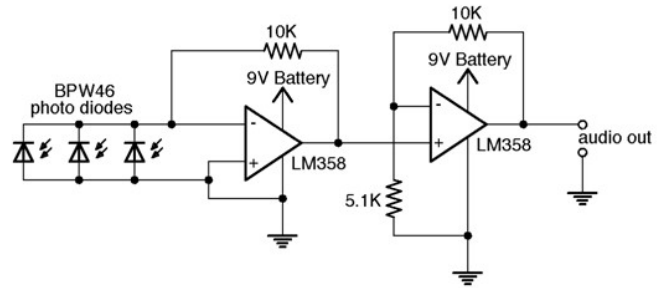
### Circuit Diagram

- This transmitter works by modulating the amplitude of the laser based on the amplitude of the audio signal that we are trying to transmit
- The audio, which is fed to the circuit through a standard 3.5mm audio jack, is sent to an adder circuit. The adder, shown below, consists of two inputs and a negative feedback resistor that will be summed together.
- The two connections to the non-inverting input of the op-amp are the audio signal and a DC bias signal that is generally kept at around 3V. This voltage can be modified by adjusting a potentiometer.
- The signal to the inverting input of the op-amp is half that of the output, which is obtained by using a voltage divider of two equal resistors.
- This feedback allows the op-amp to follow the amplitude of the non-inverting input as it attempts to equate the voltages at the two inputs.
- The output of the op-amp is sent directly to the laser. The amplitude of the laser is proportional to the voltage that is applied to it. The amplitude linearly follows the voltage up to roughly 4V, at which point the response is more exponential. We are taking advantage of the linear region of the response to send a mostly unmodified audio signal to the receiver for playback.
- The laser needs to be turned off while the transmitter is scanning for the receiver, mainly for safety and power reasons. To achieve this, the 9V supply to the op-amp is controlled by an NPN transistor, which can act as a switch controlled by the microcontroller.



## Receiver

- The receiver circuit somewhat resembles the transmitter circuit. Rather than a single phototransistor, however, it instead uses three photodiodes, which have much larger sensitive areas compared to the transistor. Since the response of the diodes directly affects the audio quality, a more complex circuit is called for.



- The diodes themselves are placed between the two terminals of an op-amp, whose output voltage is determined by the current that flows through the diodes. Using an op-amp instead of biasing the diodes allows us to utilize a near-ideal short-circuit current. With three diodes in parallel, we effectively triple the area upon which we can receive a signal.
- After amplifying the signal with a second op-amp, the result is then fed directly to an audio jack, where the signal can be heard using any compatible device.

**Fayaz Ahamed S**

**IV EEE A**

## Peer to Peer Electronic Cash system

Cryptocurrency is the side product of digital cash. It's based on the peer to peer network like Torrents, It's completely decentralized with no server or central authority in fact no government has control over cryptocurrencies. I hope many of us heard of Bitcoins in late 2017 it's the first cryptocurrency invented by Satoshi Nakamoto in the year 2009, He is still unknown to the world. You may think without a server or authority how this network works. It works on the principle of blockchain network. If a person sends some bitcoins to other person the transaction is sent to the blockchain network (interconnected computers working together), where the blocks are verified by using different algorithms of computer in the network, These computer hardware is known as ASIC Miners. By verifying the blocks the Miner receives a small amount of revenue in bitcoins,

As the popularity and network expanded the algorithm also keeps on getting difficult. As of now in August 2018 the bitcoin price is around 4.4 Lakhs. But 2017 was the historic year for Bitcoin, Because on December 2017 1 Bitcoin price was around 20000\$ which is like 14 Lakhs in INR. Now you got an idea about Blockchain Network. Bitcoins are mostly used in Deepweb and Darkwebs for making anonymous transactions. In India many traders invested in Bitcoins in early 2017 and sold it back when the price reached the highest number. But now the Bitcoin bubble has burst and it's crashed to very low numbers. The future of Bitcoin is not that bright in 2018. What you guys think?

**Pravin Nayakar**

**II EEE B**



## Li-Fi

### Introduction

Li-Fi is a technology for wireless communication between devices using light to transmit data and position. In its present state only LED lamps can be used for the transmission of visible light. In technical terms, Li-Fi is a visible light communications system that is capable of transmitting data at high speeds over the visible light spectrum, ultraviolet and infrared radiation. It is similar to Wi-Fi. The key technical difference is that Wi-Fi uses radio frequency to transmit data. Using light to transmit data allows Li-Fi to offer several advantages like working across higher bandwidth, working in areas susceptible to electromagnetic interference (e.g. aircraft cabins, hospitals) and offering higher transmission speeds. The technology is actively being developed by several organizations across the globe.

### Working of LiFi

A VLC light source could comprise of a fluorescent or light emitting diode (LED) bulb. Since a robust Li-Fi system requires extremely high rates of light output, LED bulbs are most ideal for implementing Li-Fi. LED is a semiconductor light source, which implies that LED light bulbs can amplify light intensity and switch rapidly. Therefore, LED cells can modulate thousands of signals without the human eye ever noticing. In turn, the changes in light intensity from the LED light source are interpreted and converted as electrical current by the receiving photodiode device. Once the electronic signal is demodulated, it is converted into a continuous stream of binary data comprising of audio, video, web, and application information to be consumed by any Internet-enabled device. By interchanging visible light and infrared light from a photo detector, a mobile device connected to that photo detector can send data back to the light source for uplink. Also, multi-colored RGB (Red/Green/Blue) LED's at retina size could be engineered to send and receive a wider range of signals than single-colored phosphor-coated white LED's.

**-Pragadeesh.P**  
**II EEE B**

## ARDUINO

Arduino is an open source computer hardware and software company, project, and user community that designs and manufactures single-board microcontrollers and microcontroller kits for building digital devices and interactive objects that can sense and control objects in the physical and digital world. It helps us in building up our own projects easily and coming up with creative thoughts.

Arduino board designs use a variety of microprocessors and controllers. The boards are equipped with sets of digital and analog input/output (I/O) pins that may be interfaced to various expansion boards or breadboards (shields) and other circuits. The boards feature serial communications interfaces, including Universal Serial Bus (USB) on some models, which are also used for loading programs from personal computers.

The most beneficial advantages are:-

- Arduboy, a handheld game console based on Arduino.
- Arduino Motion Control Rig.
- ArduinoPhone, a do-it-yourself cellphone.
- Ardupilot, drone software and hardware.

- DC motor control using Arduino and H-Bridge.
- Gameduino, an Arduino shield to create retro 2D video games.
- Homemade CNC using Arduino and DC motors with close loop control by Homofaciens.
- Xoscillo, an open-source oscilloscope.

**P.VASIM AHAMED**  
**II EEE B**

## **Electrical and Electronics Engineering**

### **Introduction**

Electrical and Electronics engineering is about the generation of electricity from oil, coal, gas and nuclear power, as well as the design, development and manufacture of products that use electricity. In general, electrical engineers design and develop products that use relatively high levels of electricity, such as heating and lighting systems. They also work on the generation and distribution of electricity. Electronics engineers design and develop products that use low levels of electricity and microprocessor technology. They work on a wide variety of products, including computers, telecommunications technology, televisions, and audio and video equipment.

### **Some of the careers in this area**

#### **Electrical And Electronics Assembler**

Electrical And Electronics assemblers put together electronic or electrical products, such as computers, televisions and CD players. There are two main types of work: mass production and batch production. In mass production, assemblers usually work on an assembly line. They sit near a moving conveyor belt that carries the items to be worked on. As each board passes in front of them, they insert a particular number of parts into the correct positions. In batch production, assemblers usually work at a bench. A supervisor gives the assembler a number of parts and special instructions, which may include a parts list and a diagram or technical drawing. They then work to finish the batch within a target time. There are no formal academic entry requirements. However, many employers look for GCSEs in English, Maths and a science, technology or engineering subject.

Electronics engineers design, develop, operate and maintain products that use electronics, for example, telecommunications systems, electronic imaging devices and computer-controlled systems (from satellite tracking systems to washing machines). Electrical engineers are involved in the generation and supply of electricity for the industrial, commercial and public sectors, as well as for domestic use. The usual requirement for this career is a relevant degree or HND, such as electronics/electrical engineering.

#### **Electrical And Electronics Engineering Technician**

Electronics engineering technicians support electronics engineers in the design, development, maintenance and testing of electronic products, including personal computers, digital television, control systems for heating, cooking and washing, games machines and multimedia information systems. Electrical engineering technicians

are involved in the generation and distribution of the electricity used to heat and light homes, and power industries. Engineering technicians work in areas such as research and development, design and technical drawing (draughtswork), maintenance and quality assurance (testing products to make sure they are safe and of high quality). Entry into a trainee technician post is usually with at least four GCSEs at grade C or above, including English, Maths and a science, technology or engineering subject.

### Engineering Draughts person

Engineering draughtspeople produce detailed drawings and instructions, which production workers use to make electrical/electronic products and equipment. There are two main types of draughtsperson: design and detail. Traditionally, a draughtsperson would use a drawing board and technical drawing equipment such as stencils. These days, they'll usually have computer-aided design (CAD) technology. Design draughtspeople examine designs. They calculate the number, size and weight of the required parts. They then produce a 'scheme' (a general outline) drawing. Detail draughtspeople produce the final accurate drawing for use by the production workers. They break the drawing down into a series of smaller drawings for each stage of the production process. Both detail and design draughtspeople use mathematical calculations, and need to be comfortable working with calculators and computers. Entry into a trainee technician post is usually with four GCSEs at grade C or above, which should include English, Maths and a science, technology or engineering subject.

### Conclusion

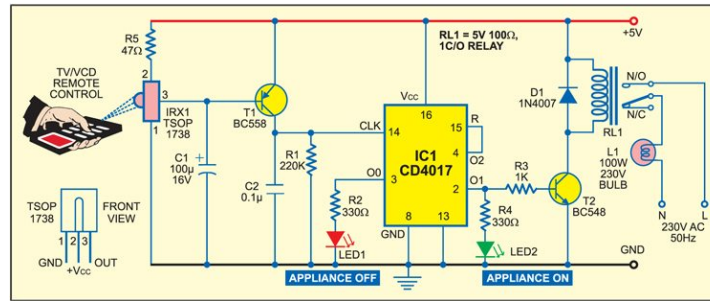
As a nutshell of this article electronic engineering is about design and development of products that use electricity. As a conclusion electrical engineers design and develop products that use relatively high levels of electricity, such as heating and lighting systems generally. They also work on the generation and distribution of electricity. Also Electronics engineers design and develop products that use low levels of electricity and microprocessor technology in the modern world with the help of technological improvement. Electronics engineering plays a major role in various sectors they work on a wide variety of products, including computers, telecommunications technology, televisions, and audio and video equipment.

**-RAMALAKSHMI.E**

**II EEE B**

# Control home appliances using IR remote

## Circuit diagram:



## Components:

- ❖ Ic cd4017
- ❖ Resistors
- ❖ Transistor
- ❖ Remote
- ❖ Capacitor
- ❖ Diode
- ❖ led

## Circuit working:

Working of the circuit is simple. Initially, when no IR beam is falling on sensor photo-transistor T1, the DC voltage appearing at the input of the window comparator is nearly zero. The window output remains low. Transistor T5 is cut-off and the relay remains de-energised.

When switch S1 is pressed momentarily, the IR beam falls on the photo-transistor for this short period of time and a positive-going pulse appears at the input of the window comparator. The output of the comparator goes low, which toggles the flip-flop (IC4) and transistor T5 conducts. Relay RL1 energises to switch on bulb B1.

Assemble both the circuits on separate PCBs and house in suitable cabinets. In the transmitter unit, fix IR LED1 on the front side and switch S1 on the back side of the cabinet. Keep the 9V battery inside the cabinet.

Similarly, in the receiver unit, fix the photo-transistor (L14F) on the rear side such that the IR beam falls on it. To avoid circuit malfunction, cover the phototransistor (T1) with a suitable contraption so that the phototransistor is not exposed to unwanted light sources. Fix switch S2 on the front panel and the relay on the back side. Keep the 9V battery inside the cabinet.

**N.Sowmiya**

**III EEE B**

## **Raspberry Pi**

The Raspberry Pi is a low cost, credit-card sized computer that plugs into a computer monitor or TV, and uses a standard keyboard and mouse. It is a capable little device that enables people of all ages to explore computing, and to learn how to program in languages like Scratch and Python. It's capable of doing everything you'd expect a desktop computer to do, from browsing the internet and playing high-definition video, to making spreadsheets, word-processing, and playing games. What's more, the Raspberry Pi has the ability to interact with the outside world, and has been used in a wide array of digital maker projects, from music machines and parent detectors to weather stations and tweeting birdhouses with infra-red cameras. We want to see the Raspberry Pi being used by kids all over the world to learn to program and understand how computers work.

The Raspberry Pi ships as just the single-board minicomputer. There are a few additional components you will need before you can get started. So, when making your purchase, keep in mind that you'll need the following extras. The Raspberry Pi is a mini computer that was specifically created to make tech learning easier. It has a lot of components for computer-based projects, like USB ports, an ethernet port, an SD card slot, Wi-Fi antenna ports, and more. It does not come with peripherals, like cables, a keyboard, a mouse, or a monitor. It is great for learning program languages, like Python, Scratch, and Wolfram. Most Raspberry Pi enthusiasts like making single-process builds to show off their do-it-yourself talents.

**Surendran.J.R**

**II EEE-B**

## **Generate Electricity From Your Windows Using Solar Gaps Blinds**

If solar panels on the roof offend your aesthetic sensibilities and [Tesla's sun-soaking roof tiles](#) aren't quite in your budget, then maybe the roof isn't the right place for you to harvest the sun. Solar Gaps allows you to do that from the window instead. A set of window blinds equipped with solar panels, the rig allows you to harvest sunlight at home without complicated roof installations, so you can supplement your connection to the grid with sustainably-generated power. Since these are just windows blinds, there are no permanent installations, making it a straightforward plug-and-play solution that you can set up and remove at any time.

Each Solar Gap look no different than traditional window blinds from afar, although you will notice the presence of photovoltaic cells once you start inspecting up close. Each 10-square foot window area covered by the blinds

can generate as much **150W** of power, which should be enough to power all the lights in your home, as well as three MacBooks all running at the same time

**S.PRIYADHARSHINI**

**III EEE B**

### **40GB Wi-Fi**

The maximum speed of Internet connectivity, whether wired or wireless, has always been defined by foundational challenges in electrical engineering – semiconductor size and composition, for example. Each advance in speed represents a fundamental shift in engineering processes, whether from applying novel materials, new transmission media, or other technology.

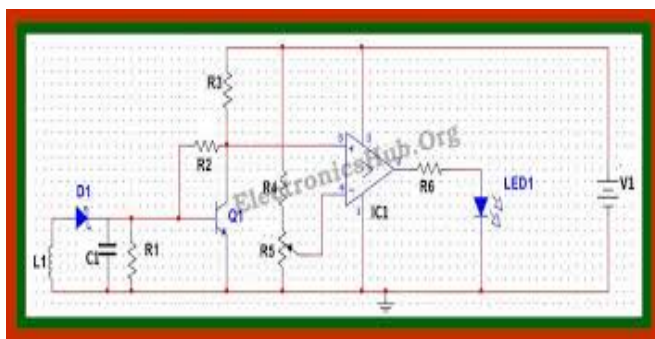
Back in 2013, the Karlsruhe Institute of Technology in Germany broke the speed limit for Wi-Fi by delivering 40 gigabytes of data per second over a distance of more than half a mile. The key innovation was a new set of chips capable of processing signals at higher-than-usual frequencies. The shorter the wavelength, the more powerful Wi-Fi can theoretically be

**Vaishnavi.s**

**III EEE B**

### **Cell phone detector**

**circuit diagram:**



**Circuit Components:**

- V1 = 12V
- L1 = 10uH
- R1 = 100Ohms

- C1 = 100nF
- R2 = 100K
- R3 = 3K
- Q1 = BC547
- R4 = 200 Ohms
- R5 = 100 Ohms
- IC1= LM339
- R6 = 10 Ohms

### **Cell Phone Detector Circuit Applications:**

1. This circuit can be used at examination halls, meetings to detect presence of mobile phones and prevent the use of cell phones.
2. It can be used for detecting mobile phones used for spying and unauthorized transmission of audio and video.
3. It can be used to detect stolen mobile phones.

**N.Soundarya**

**III EEE B**

### **History of electrical engineering**

Long before any knowledge of electricity existed, people were aware of shocks from electric fish. Ancient Egyptian texts dating from 2750 BCE referred to these fish as the "Thunderer of the Nile", and described them as the "protectors" of all other fish. Electric fish were again reported millennia later by ancient Greek, Roman and Arabic naturalists and physicians. Several ancient writers, such as Pliny the Elder and Scribonius Largus, attested to the numbing effect of electric shocks delivered by catfish and electric rays, and knew that such shocks could travel along conducting objects. Patients suffering from ailments such as gout or headache were directed to touch electric fish in the hope that the powerful jolt might cure them. Possibly the earliest and nearest approach to the discovery of the identity of lightning, and electricity from any other source, is to be attributed to the Arabs, who before the 15th century had the Arabic word for lightning applied to the electric ray.

Ancient cultures around the Mediterranean knew that certain objects, such as rods of amber, could be rubbed with cat's fur to attract light objects like feathers. Thales of Miletus made a series of observations on static electricity around 600 BCE, from which he believed that friction rendered amber magnetic, in contrast to minerals such as magnetite, which needed no rubbing. Thales was incorrect in believing the attraction was due to a magnetic effect, but later science would prove a link between magnetism and electricity. According to a controversial theory, the Parthians may have had knowledge of electroplating, based on the 1936 discovery of the Baghdad Battery, which resembles a galvanic cell, though it is uncertain whether the artifact was electrical in nature.

**VIJAYENDRAR.B**

**II EEE B**



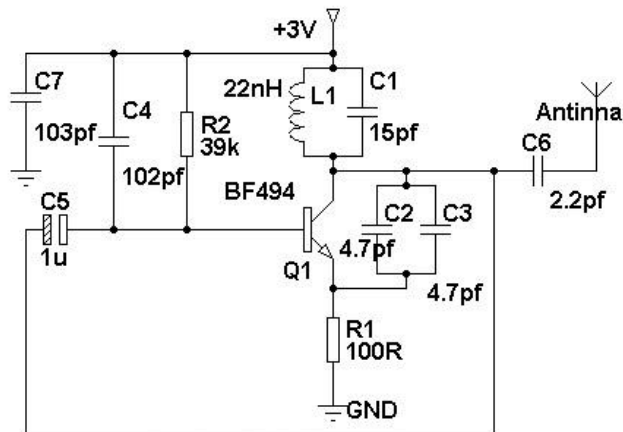
## CELL PHONE JAMMER

Cell phone jammer is an electronic device that blocks transmission of signals between a cell phone and a base station. By using the same frequency as a mobile handset, the cell phone jammer creates strong interference for communication between the caller and receiver. It is efficient in blocking transmission of signals from networks including UMTS, 3G, CDMA, GSM and PHS. Mobile phones operate at different frequency bands in different countries. USA uses 850 and 1900 MHz bands, depending on the area. Europeans tend to use the GSM 900 and 1800 bands as standard. Middle East, Africa, Asia and Oceania also use these frequency bands. The use of different frequencies makes it difficult to have a jammer for all frequencies. However the below mentioned formula can be used to calculate the required values.

$$F = 1 / (2 * \pi * \text{sqrt} (L1 * C1))$$

Depending on the frequencies you need to block, the values of inductor (L1) and capacitor (C1) can be altered.

### CIRCUIT DIAGRAM:



### DESCRIPTION:

For any jammer circuit, it's essential to have three important sub circuits.

- RF amplifier
- Voltage Controlled Oscillator
- Tuning circuit

### WORKING OF CELL PHONE JAMMER:

- RF amplifier circuit comprises of the transistor Q1, capacitors C4, C5 and resistor R1. This RF circuit amplifies the signal generated by the tuned circuit.

- The amplified signal is given to the antenna through capacitor C6. It blocks DC and allows only the AC component of the signal to be transmitted.
- When transistor Q1 is turned ON, the tuned circuit at the collector turns ON. The tuned circuit consists of capacitor C1 and inductor L1.
- This acts as an oscillator with zero resistance. It produces very high frequency with minimum damping.
- When the circuit is ON, voltage is stored in the capacitor. Once the capacitor is completely charged, it allows charge to flow through the inductor.
- When current flows through the inductor, it stores magnetic energy corresponding to the voltage across the capacitor. At a certain point, the inductor reaches its maximum and the charge or voltage across the capacitor turns to zero.
- Now the magnetic charge through the inductor decreases and the current charges the capacitor in opposite or reverse polarity. The process repeats and after a while, inductor charges the capacitor and becomes zero.
- This process runs till internal resistance is generated and the oscillations stop. RF amplifier feed is given through capacitor C5 to the collector terminal before C6. The capacitors C2 and C3 generate pulses in random fashion (noise) at the frequency generated by the tuned circuit.
- The RF amplifier boosts the frequency generated by the tuned circuit. The frequency generated by the tuned circuit and the noise signal generated by the capacitors C2 and C3 is combined, amplified and transmitted.

#### NOTE:

- Power supply for the circuit should not exceed 3 Volts.
- This circuit can block signals only within a 100 meter radius.
- If the circuit is not working properly, try increasing resistor and capacitors values in the circuit. Use the formula

$$F = 1 / (2 * \pi * \text{sqrt}(L * C))$$

**-K.Arunkumar**  
**IV EEE A**

### Introduction to the Two-Cavity Klystron Amplifier

The klystron is a device for amplifying microwave frequency signals that achieve high levels of power gain by applying vacuum tube principles and the concept of “electron bunching”. Klystrons are used in satellite systems, television broadcast, and radar, as well as particle accelerators and medicine.

The klystron was invented by the brothers Russell and Sigurd Varian at Stanford University. Their prototype was completed and demonstrated successfully on August 30, 1937.

Klystrons can be used in the UHF region (300 MHz to 3 GHz) up to 400 GHz. There are several flavours of klystron amplifiers. One major type is the reflex klystron, which is used primarily as an oscillator.

For this article, however, we will focus on another popular type: the two-cavity klystron.

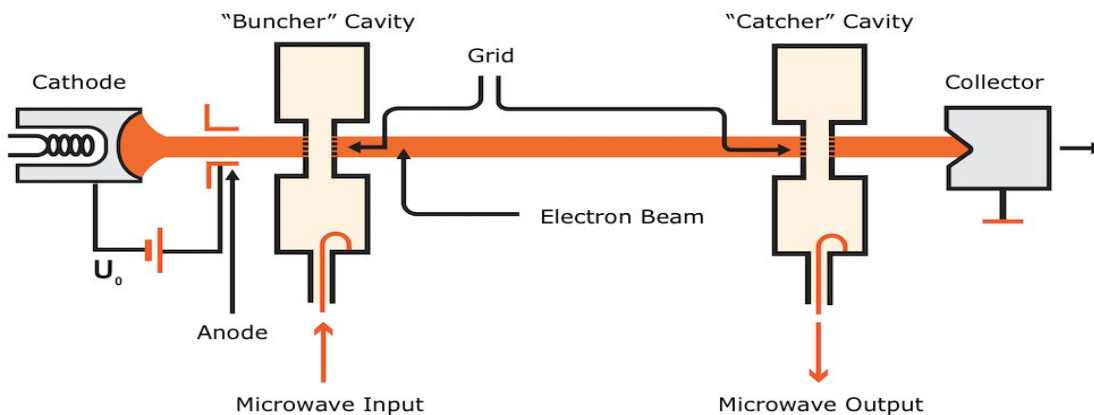
## Principles of Two-Cavity Klystrons

### Two-Cavity Klystron Geometry

The two-cavity klystron utilizes an electron source (heater), an anode, and a cathode like a conventional vacuum tube. It also utilizes a collector element at the end of the electron stream. The heater boils off electrons when heated and the electrons are ejected from the cathode and accelerate towards the anode due to the high dc potential between the two elements. A focused beam of electrons is thus produced.

In the case of the two-cavity klystron, the electron beam passes through a central hole in the first toroid-shaped cavity and through a similar second cavity, terminating at the collector.

On each side of the cavity hole is a grid that the electrons pass through. It is the interaction of the cavities with the beam that provides the high levels of amplification that the device can produce.



T. Saravanan

IV EEE B

## How Do Satellites Communicate with a GPS System? A Look at the GPS Antenna

Antennas provides the wireless linkage required for any satellite-based system. Here's a look at the many antennas of GPS.

There are three segments of a working GPS antenna:

- The **space segment** transmits position, navigation and timing (PNT) signals, as well as satellite status.
- The **control segment** handles the telemetry, tracking and control (TTC) signals needed for corrections.
- The **user segment** receives the PNT signals and provides the GPS data we've come to rely on.

In addition, there's control of the satellite constellation itself, providing uninterrupted, continuous GPS coverage.

## **The Space Segment: Antennas on Satellites**

Antennas have always been part of satellites to transmit tracking signals since visual tracking is of limited usefulness. It took decades to reach the current GPS constellation now in orbit. Each generation (block) of satellites brought expanded functionality and improvements in antenna design.

## **The Control Segment: The Operational Control System**

The Operational Control System (OCS) is responsible for providing control for the GPS system. It tracks orbits, synchronizes timing, and uploads data messages.

Subsystems include the AEP (Architecture Evolution Plan) which commands and controls the operational GPS satellite constellation and the LADO (Launch/early orbit, Anomaly resolution, and Disposal Operations) system which handles non-operational satellites. The OCS consists of a Master Control Station (MCS) at Schriever Air Force Base in Colorado, a backup MCS, dedicated ground antennas and monitor stations.

GPS receivers on the monitor stations passively track the navigation signals on all SVs. The MCS receives the data from the monitor stations, processes it, and sends updated navigation information to the SVs through the ground antennas using an S-band signal. The ground antennas are also used to transmit commands and receive state-of-health data (telemetry).

The frequencies used are:

- Uplink: 1783.74 MHz
- Downlink: 2227.50 MHz

## **User Segment: GPS Receivers**

The user segment consists of all the civilian, commercial, and military GPS receivers, each equipped with internal or external antennas designed to capture the PNT signals sent from multiple SVs. GPS antennas translate the high-frequency, RHCP, spread-spectrum signal to an intermediate frequency. The antennas need a fairly small bandwidth, though receivers designed to pick up signals from other positioning systems, like GLONASS or Galileo, have extended frequency requirements. Clear sky access is needed for the best reception.

For any GPS-enabled device, whether a mobile phone, vehicle, farm equipment, life monitoring system or wearable, an antenna is required. Some people argue the antenna is the most important part of the receiver. Once received and translated, the signals in electrical form are sent for further processing... to a mapping program, tracking application or used for timing.

The availability of GPS on multiple devices has relied on the development of the microstrip antenna, manufactured as part of a printed circuit board (PCB), and the extended GPS technology developed by SnapTrack (now part of Google), meshing GPS data with wireless networks.

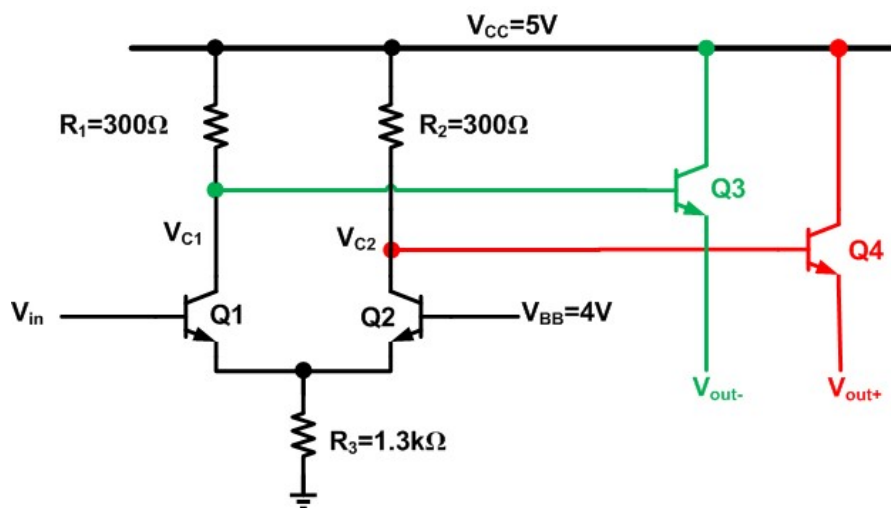
By integrating GPS signals with those received from sources like wireless networks and ground/satellite-based augmentation systems, GPS data becomes accurate enough to locate mobile phones for 911 use and to help pilots safely land aircraft. To use these augmentation systems, receivers must include the extra antennas and processing software for integration with GPS.

**Praveen Fernandes**  
IV EEE B

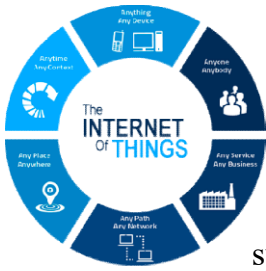
## The Basics of Emitter-Coupled Logic

*An ECL inverter/buffer*

**M. Ramanachiappan**  
IV EEE B



## *Smart Lab Monitoring Using IOT*



Now-a-days in the current scenario in all the colleges the presence of faculty in any laboratory is inevitable which is not possible all the times. In electrical machines laboratory constant monitoring by the staff in charge is necessary to note down the readings. The idea of this project is to implement a smart monitoring system for electrical lab equipment. The proposed system can sense the reading from machine and share it to the mobile app/webpage in the absence of teaching staff which would make easy for the concern staff for monitoring and analyzing the observations made. It uses Arduino platform as a micro controller to read the voltage, current, speed and weight from sensors and then wirelessly send the measured data through Wi-Fi module to monitor the results using the IOT application. The Arduino controller and Wi-Fi module are a cheap microcontroller and communication medium for this application. The data get stored automatically and can be retrieved whenever necessary by the end user.

While taking a reading in Electrical machine, it leads to observational error. If the observational error increases means, it leads to poor performance and lower efficiency to the system. So this proposal gives a proper solution to solve and reduce the error.

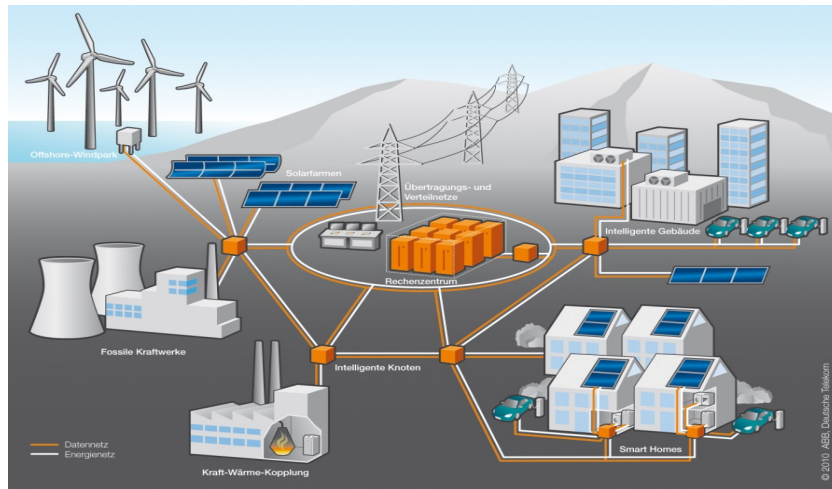
The main target of this project are those who are working in Engineering colleges, factories and handling machine lab can benefit more. The beneficiary can easily monitor the students those who are doing laboratory and the staff members can correct them if they made any wrong readings. Reduce the availability of staffs.

On comparing with others the observations can be stored and we can retrieve the stored data's and used for the future reference. By using the IOT concept the data transmission response will be fast and easy communication with the respective devices.

**Navaneeth R,  
RJ Prushoth,  
D Ragavan,  
G Winston.  
IV EEE B**

## SMART GRID

A **smart grid** is an electrical grid which includes a variety of operational and energy measures including smart meters, smart appliances, renewable energy resources, and energy efficiency resources. Electronic power conditioning and control of the production and distribution of electricity are important aspects of the smart grid.



- Navaneeth. R

IV EEE B

## Generation of Energy form Tesla coil.

### Tesla coil:

A Tesla coil is an electrical resonant transformer circuit designed by inventor Nikola Tesla in 1891.

It is used to produce high voltage, low current, high frequency alternating-current electricity.

Uses: Application in educational demonstrations novelty lightning, music.

Inventor: Nikola, Tesla.

Types: BTC30, BTC 50, BTC 60, BTC 70, QUASAR 60.

### Tesla coil:

The Tesla coil we bring with is small and only generates a couple hundred thousand volts of electricity and will light up a fluorescent bulb held in our hand.

### The Dimension:

A fluorescent light bulb held near a tesla coil will light up and spark, even without being plugged in.

### Quick Physics:



The Tesla coil creates an electric field that pushes electrons through the light bulb. This is the same way the lights in our house work,

except in your house the electricity comes through a wire instead a through the air.

**Details:**

A Tesla coil is a device for making very high voltages. Voltages is a way to measure how much energy an electric charge has.

Tesla coil can make voltages of more than a million volts. The small are used in the demonstration makes about 60,000 volts.

Normally, such high voltages are very dangerous, but the Telsa coil makes very high frequency electricity.

This means the coil turns and off very quickly so they electricity flows on the outside of your skin instead of through your body.

**K.Yuvaraja**

**III EEE B**

**Bots Technology**

We all have gotten use to speaking with bots whenever we call to make airline reservations or to confirm our bank account balances. The use of natural language bots will expand from use as automated customer service agents to become routine for daily living.

Home bots will do more than just respond to requests, to being able to provide timely information such as, “It’s time to take your medicine.” You may even feel like Don Quixote as mobile bots become dedicated Sancho Panza servants—always at the ready and by your side.

Imagine a bot whispering in your ear “don’t make that purchase or you will be over your credit limit” or “your parking meter expires in two minutes.” Bots will help with the children, act as financial investment advisors, and be an omnipresent value-add from the brands you trust. With phones staying in our pockets, businesses will likely spend more on creating chatbots in 2018 than on apps in an effort to better serve their customers.

Li-Fi, a new light-base wireless connection with data speeds 100 times that of Wi-Fi, will bring high-definition virtual objects into stores. With Li-Fi and AR, consumers can see limitless virtual inventory in store, at scale.

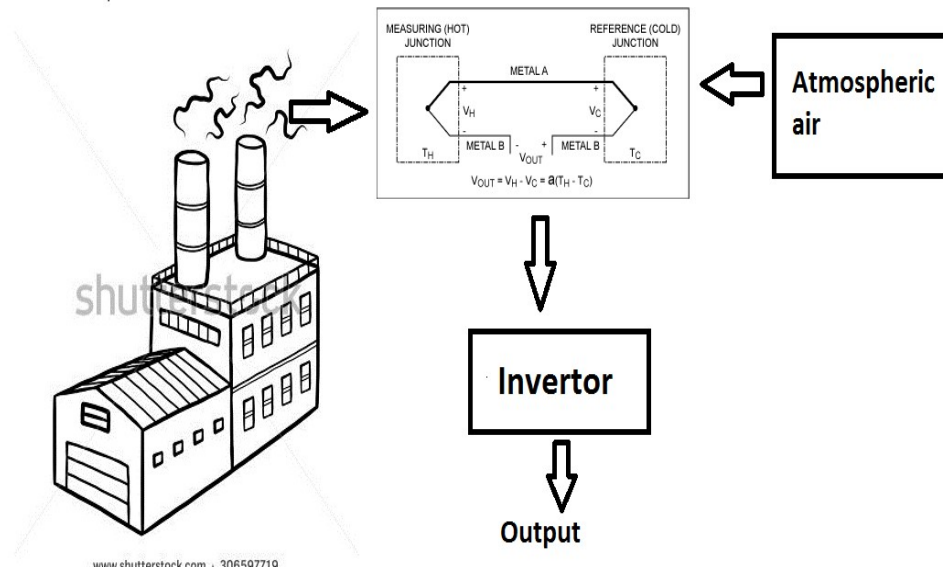
**R.Nithish kumar**

**III EEE A**

# Generation of electricity from chimneys

## Working

Some aluminium bars are placed inside the area of chimney. These bars are made to make holes on either surface of wall and attached to the hot junction of the Peltier module. The cold junction is made to face the atmosphere to act as cold junction. The hot junction will receive around 200-500 degree Celsius. By seebeck effect voltage will be induced between the two junctions.



A peltier module consists of two junctions. One junction is hot junction and the other is cold junction. When we apply hot temperature to the hot junction and apply lower temperature or normal room temperature to cold junction voltage will be produced on the principle of seebeck effect.

Each and every industrial chimney emits hot gases which will be more than 200 degree Celsius. We will place aluminium bars inside the chimney diameter. The hot air that is passing through the bars will transfer heat to aluminium. We can use aluminium or copper bars inside the chimney. These bars are made to expose their ends to the hot junction of the peltier module. And with the use of blower we supply a little cool air to the cold junction of peltier module. Or we can even use normal temperature for cold junction. If 200C is being given to hot junction and cold junction is given 30-45 degree Celsius, we will be able to get about 12V DC voltage approximately. The voltage can be increased if the temperature is increased further in hot junction and reduced further in cold junction.

**JOSHUA SMITH S**

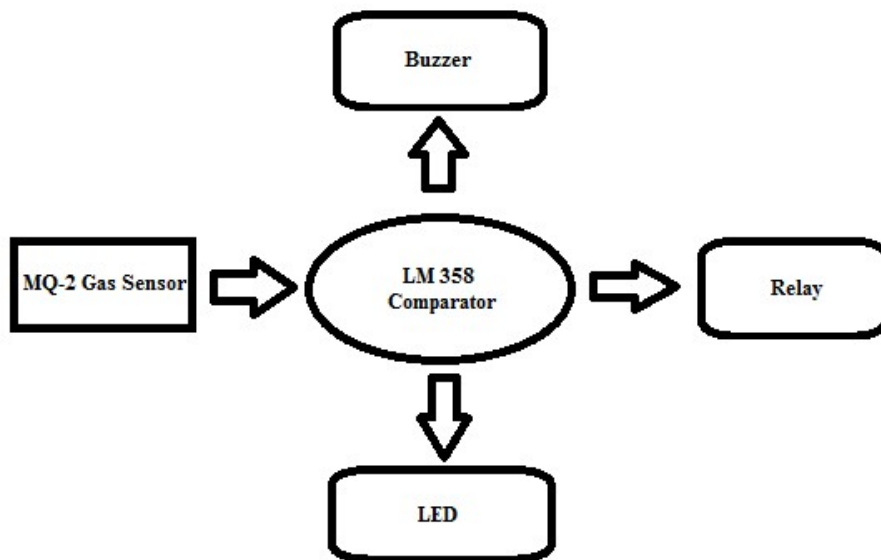
**IV EEE A**

# ECONOMICALLY EFFICIENT LPG LEAKAGE DETECTOR

## INTRODUCTION:

The circuit for an LPG leakage detector is readily available in the market, but it is extremely expensive and usually based on a microcontroller (MCU). Presented here is a low-cost circuit for an LPG detector that you can build easily. The main objective of the circuit is to detect LPG leakage anywhere.

## BLOCK DIAGRAM:



## EXPLANATION/WORKING:

This circuit consists of dual operational amplifier IC1 LM 358, Gas Sensor, IC2, transistor, relay and buzzer. The dual operational amplifier Consists of two stage amplifiers. Here BR! Is acts as a bridge rectifier which converts from ac supply to unregulated dc supply. The unregulated DC supply is altered to regulated DC supply by using IC1, C1 & C2, C3 & C4.

The alcohol or chemical gas is sensed by gas sensor Q-1 and the sensor output voltage is formed across the fixed resistor R4, R5. The sensor output voltage is connect to the input of dual operational amplifier IC1 at pin3. The sensor output voltage is compared with the reference voltage at first amplifier stage of IC1. The preset PR1 serves to adjust the reference voltage through the fixed resistor R6.

The first stage amplifier output at pin1 is connected to the second stage amplifier at pin5 through the resistor R3 when the first stage amplifier becomes HIGH the output LED will glow. The first stage amplifier output is compared with the reference voltage through the resistor R7 & R9. R8 is act as a feedback resistor.

When dual amplifier output is high, the transistor T1 is ON through the bias resistance R1 & R2 which makes the relay and buzzer to ON. C5 & D1 are used to protect the relay which avoids flickering.

**Athirshita Lakshmi.S., Binujha Angelin.M.**

**Bhavatharani.S., Anitha.M.**

**Ezhilmathi.M**

**IV EEE A**

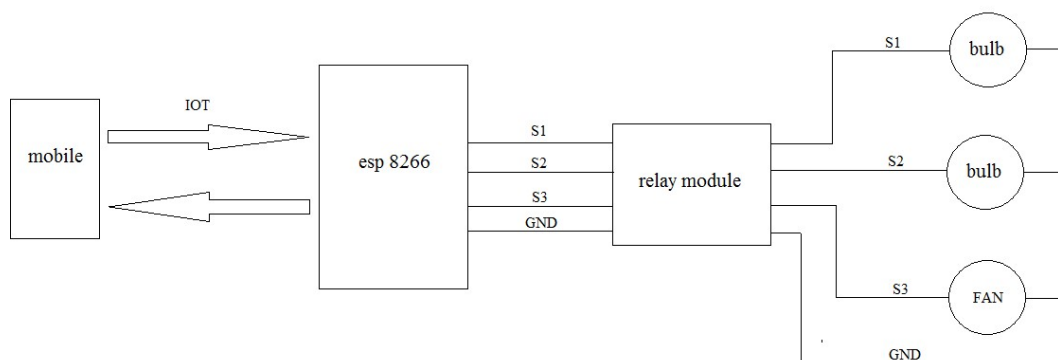
## HOME AUTOMATION USING IOT

In this project we have controlled the home appliances using the **google assistant** through voice signal. This project can be classified into three parts they are

- Software
- Hardware
- Intermediate (free cloud)

We have used google assistant software to get the input from the human. Hardware is used to receive the signal from the cloud account and control the appliances with respect to the signal. Intermediate part is used to store the data from the google assistant and the hardware (esp8266) will take the data from the intermediate part.

### Block diagram:



### WORKING:

This IOT project is used to control the home appliance using the google assistant. **ESP 8266** will receive the signal and sent a signal of less than 5V to the relay module and when the relay module receive signal it will turn on the appliances of 230V.

By this project you can monitor the **status** of the home appliances through your mobile. Drawback is, their should be proper internet connection.

**T.Gokula Krishnan**

**S.Joshua Smith**

**L.Bhaskar**

**S.Karthik**

**IV EEE A**

### **Out of box thinking**

#### **Teaching!**

If there is any sacred profession then I would say it is being a teacher. A teacher is the one who mould our thoughts, the thoughts of our future generation.

“Do not destroy the faith of any man. If you can, give him something better but do not destroy what he has” -  
**Swami Vivekananda**

Giving something without destroying what one has is an art of teaching, which not all posses. Everyone wants to be the best, for which they even seek the best. Every individual is in search of the best teacher, the best educator, but not many want to be one.

Most of them want their children to have the best quality education but least did they bother to be a teacher when they has chance to, after their graduation. This is exactly why we don't have adequate amount of dedicated teachers today. And we know that without dedicated teachers our system would never strengthen.

The only solution is to be one. This could be a progressive profession, if the present generation who have passion towards teaching profession peruse until there is a visibility of better tomorrow.

**“Matha Pitha Guru Deivam”**

Teaching is such a profession which is kept even above the almighty.

**Drishya.R**

**III EEE A**

## Importance of your inner beauty

Nowadays people give importance to their external beauty, outward appearance and looks. The whole world is turning towards this mess. You can stay beautiful and smart while you are young, but it won't last forever. Don't go to parlour and waste your time and money on your perishing beauty and looks. Start working on your inner beauty, tune your soul. Your Inner personality counts more than your outer appearance.

Start loving people for their inner personality, it lasts longer. You did not look at your mom's appearance to love her. You see the inner beauty of her, adore and love her for that. That's why your love on your mother lasts forever. So, start building your character, inner personality and nurture your soul.

"It's not what is outside of you that takes you to the top, but that is inside you."

The main reason for broken families and more divorce in our societies is because people lack to develop the inner personality and soul.

" Start loving souls, you will never be disappointed"

**Joshua Smith S**

**IV EEE A**

## Sherlock Holmes Riddles

- Sherlock, A detective who was mere days from cracking an international smuggling ring has suddenly gone missing. While inspecting his last-known location, you find a note:

710                      57735                      34                      5508                      51                      7718

currently, there are 3 suspects: Bill, John, and Todd. Can you break the detective's code

and find the criminal's name?

### Ans:

Bill. If you read the message upside down, you'll notice that the numbers resemble letters and that those letters form legible sentences. The message is 'Bill is boss. He sells oil.'

- A woman was in her hotel room when suddenly there's a knock on the door. She opened the door to see a man whom she had never seen before. He said, "I'm sorry, I have made a mistake, I thought this was my room." He then went down the corridor and in the elevator. The woman went back into her room and phoned security.

Why was the woman so suspicious?

**Ans:**

Because the woman suspected that if he really thought it was his room then he wouldn't have knocked at the door.

The man might have an intention to break in, in order to steal something, if no one was in the room. He knocked to make sure that no one was in there.

- A man was found dead with cassette recorder in one hand and a gun in other. when the police came in they immediately pressed the play button on the cassette. He said " I have nothing else to live for. i can't go on." then the sound of the gunshot. After listening to the tape police immediately found that it was not a suicide but a homicide. how?

**Ans:**

If the man shot himself while he was recording , how did he rewind the tape?.

- It was a dark stormy night and a couple were in a car racing madly through a foreign city. The car broke down and the husband had to go get help from someone who spoke his language. He was afraid to leave his wife alone in the car so he pulled up the windows and locked the car before leaving. When he came back, the car was in the same state as he had left it but his wife was dead, there was blood on the floor and there was a stranger in the car. What happened?

**Ans:**

The wife was about to have a baby. They were driving to the hospital. The baby was born, And the wife didn't survive the birth

- A couple went on for a climbing trip. But only the husband returned from the vacation and said that his wife slipped off while climbing and died. On investigating, the local sheriff arrested him saying, 'Your travel agent called. You murdered your wife.'

The man did not inform anyone about the trip. Then how did the agent was so sure that it is a murder?

**Ans:**

The man bought only one way ticket for his wife whereas he bought two way ticket for himself. It means that he was sure that he will be returning alone.

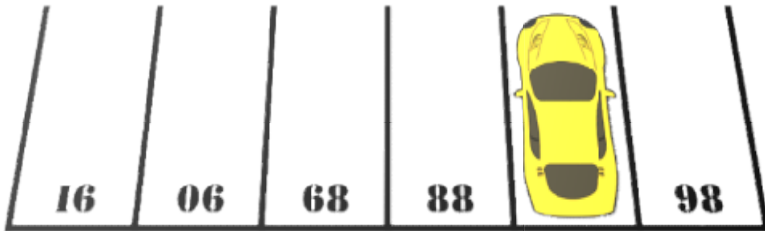
**Bhaskar L**

**IV EEE A**



## Puzzles

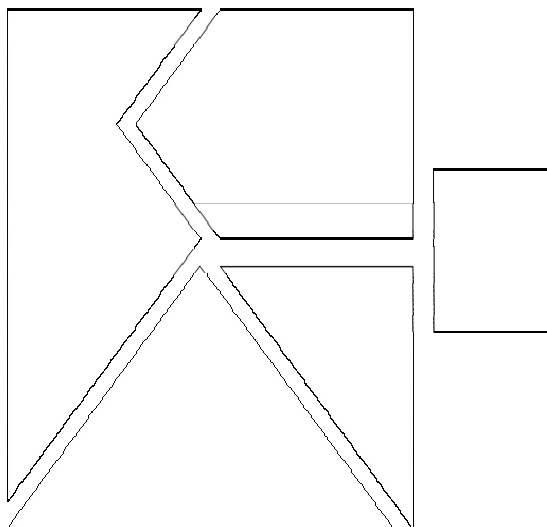
1. What parking spot number is the car parked in?



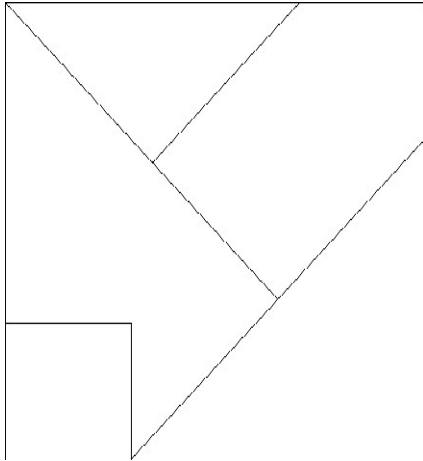
ANSWER:

87 (view the image upside down).

2. The five pieces shown below must be put together to a square.

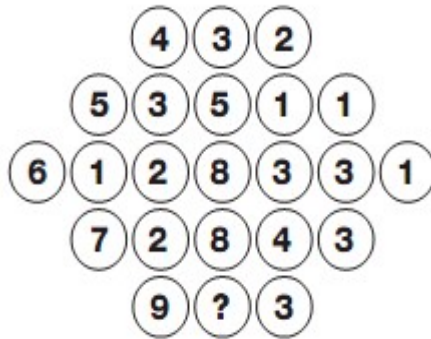


Answer



What number comes inside the circle?

3.



ANSWER: 6

Explanation: Looking at the diagram in rows, the centre circle equals the sum of the numbers in the other circle to the left and right of the centre.

**VAISHNAVIS**

**III EEE B**

### **Treasure of My Life**

Some people come into our lives  
just like a 'Guardian Angel'  
to give us a strong shoulder  
to lie on

And make us feel more comfortable

at times of grief...  
They are the GIFTS FROM THE HEAVEN  
to save our fading heart....

The courage they provide us  
is not enough to move out  
the rocks in the life's path....

People who echo everything within us  
into a 'mirror' that has striking of us, always.....  
And those Angels are 'MY FRIENDS'.....  
who have been the Light house of my life!!!!

**-Sooriya Priya Dharshini R  
IV EEE-B**

### **GRADUATION IN LIFE!!!**

Keep Moving!..  
You graduate in your life!  
Some of you Graduate more!!  
Some may fall in love, some don't...  
Everything makes little sense where you are!  
You cannot connect the dots by looking backward,  
But you can connect them by looking forward!!!  
Find the friend that someone can hold you high and free!  
Someone can have you back,  
Someone let you to be yourself and accepts what you are!!!  
Above all,  
Be the home that everyone can return to.....  
**KINDNESS CHANGES EVERYTHING!!!**

**R.Sneha  
IV EEE B**

### **Life!!! A Kind of Bliss!!!!**

Time change....  
People change....  
Life changes....  
Path changes, situation changes....  
But the only constant is 'You'....  
And if you can change and if the change is better  
like everything else, then appreciation for yourself,

for completed a Milestone of your life....

Let time act better than before,  
People around you be the best versioning!  
Your life a wonderful experience,  
The path you're travelling  
is the most adventurous one  
and the situation are all 'Sweet Memories'  
Exist for the reason  
You have been put on this earth.....

Let's Discover the Unseen Magic Within Us!!!!

**-Sooriya Priya Dharshini R**

**IV EEE B**

### **EEE IN REAL LIFE**

Transformers: Step up your dreams, passions and love. Step down your anger worries and sadness.

Motor: Keep moving fast and continuously with high efficiency.

Generator: Generate wisdom through your knowledge.

Conductor: Have least resistance for friends, good company.

Insulator: High resistance for weaknesses.

Fuse: Protect yourself first from damage.

Semiconductor: Enjoy your hard times; they will make you only strong because behind the clouds the sun is still shining.

***Naresh Kumar***  
***IV EEE-B***

### **10 FUN FACTS ABOUT ENGINEERING AND TECHNOLOGY**

1. The word engineer comes from a Latin word meaning 'cleverness'.
2. The fastest passenger train in the world is the Shanghai Maglev with a maximum operational speed of 267 mph.

3. The largest wind turbine in the world is in Denmark. It is 720 feet tall, has 260-foot blades, and can generate 8 megawatts of power (enough to supply electricity for 3,000 American homes).
4. The snowboard was invented by an engineer. Serman Poppen invented a toy for his daughter by tying two skies together and attaching a rope to one end. This invention called the “snuffers” eventually evolved into the snowboard. With some engineering twists and turns along the way, the snowboard has become a marvel of geometry, chemistry, and biomechanics.
5. According to Moore's Law, microchips double in power every 18 to 24 months. Gordon E. Moore, a founder of Intel, proposed the concept in 1965.
6. Big Brutus is the second largest electric shovel in the world. The electric shovel constructed in 1963 took more than 150 railroad cars and over a year to build. It is 160 feet tall and operates at 15,000 horsepower. The shovel had to be shut down in 1974 because the cost of operation was twice that of the value of coal it recovered.
7. Although there is much debate about this fact, the first video game, called “Tennis for Two” was introduced in 1958 and created by William Higginbotham.
8. The first computer program was predicted by Ada Lovelace in a paper she published in 1843. Ada suggested that plan for calculating Bernoulli numbers with a new calculating engine called the “Analytical Engine”.
9. The Atari Portfolio was released in 1989 and was the world’s first palmtop computer. Two years later it appeared in the film Terminator 2, where it was used by John Connor to hack an ATM and retrieve the key to the vault in the Cyber dyne lab.
10. One Google search produces about 0.2 g of CO<sub>2</sub>. But since you hardly get an answer from one search, a typical search session produces about the same amount of CO<sub>2</sub> as does boiling a tea kettle. Google handles about 1 billion search queries per day, releasing some 200 tons of CO<sub>2</sub> per day.

**-R. Vinoth**

**IV EEE –B**

### **Mirror:**

"Our deepest fear is not that we are inadequate. Our deepest fear is that we are powerful beyond measure.

It is our light, not our darkness that most frightens us. We ask ourselves, 'Who am I to be brilliant, gorgeous, talented, fabulous?'

Actually , Who are you not to be? You are a child of God. Your playing small does not serve the world.

There is nothing enlightened about shrinking so that other people won't feel insecure around you. We are all meant to shine, as children do.

And as we let our own light shine, We unconsciously give other people permission to do the same. As we liberated from our own fear,

our presence automatically liberates others".

**K. Padmashree**

**III EEE B**

### **Believe it or not:**

- 1) THE human body contains enough carbondioxide to provide "lead" for about 9,000 pencils.
- 2) Bee Stings are acidic while wasp stings are alkaline.
- 3) Some lipstick contains lead acetate or sugar of lead. This toxic lead component makes the lipstick taste sweet.
- 4) Mars is red because its surface contains a lot of iron oxide or rust.
- 5) pearls , bones and teeth will dissolve in vinegar, which contains weak acetic acid.
- 6) Light from earth takes just 1.2555 seconds to reach the moon.
- 7) The focussing muscles of the eyes move around 10,000 times a day.
- 8) A plastic cup can take 50-80 years to compose.
- 9) Most cows give more milk, when they listen to music.
- 10) Lobster blood is colourless, when it is exposed to air it appears blue.

**-Ishwaryalakshmi.S**

**III EEE A**

### **Friendship**

My friendship is not like the sun

That you can see only in the day

My friendship is not like the stars

That you can see only in the night  
My friendship is like the sky  
That you can see from anywhere

**Ishwaryalakshmi.S**

**III EEE A**

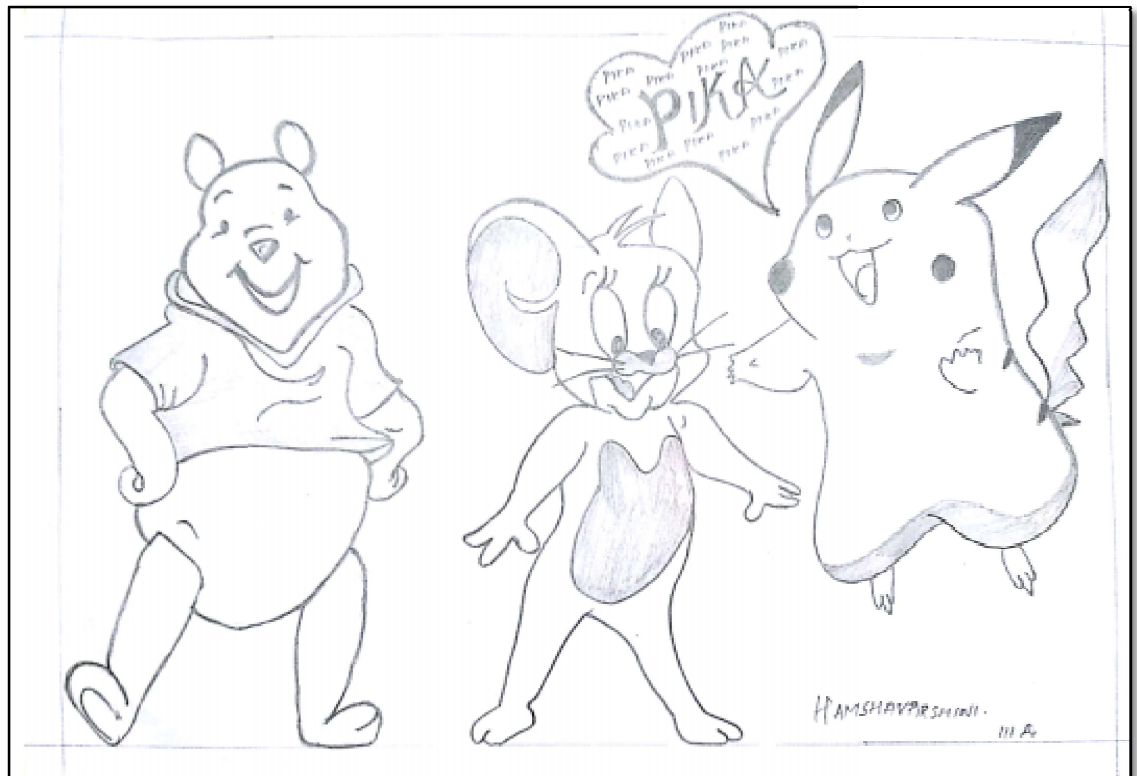


**Padmashree**

**III EEE A**

**Hamsavarshini**

**III EEE A**





**Poojalakshmi S**

**III EEE A**



**T.GOKULAKRISHNAN**

**IV EEE A**



கவியார் தாயே!

"கிராமங்களுக்கான" எந்தருமை தாய்க்கீடு

என் சுவைநாடிநீது வணக்கம்..

எனது முன்னோற்றத்தினைக் கருதிநீது சொல்லு  
நனிமையின் என்னை வாடிநீது என் நலியாடிநீது  
வாய்மைநீது அசாணை!

உன் சேய் உணர்வாடுநீது கற்றவைகள் ஏராளம்!  
உம்முள் அபவீசியாடுகீடுமீ லாண்டுகளை எடுதிதுரைக்க  
கிந்தனை போதாது!

அதிலிள் அமைதமீ! பொருமைமளி உரைதமீ!!

எச்சுமையுமீ எந்நீக்கொள்தமீ துணியு,  
பற்றினதின் கிணைவைக் கணையுமீ பாவிடு,  
முதநீதுநீது கிணைநீது, முதனோரமீ பணியு!

கிணைநீதுநீது கிணைநீது கிணைநீது கிணைநீது கிணைநீது  
பெருமை உம்கையேசீ சாரும்!

ஆடு தாய் உம்கையேசீ உடன் மறப்பாய்.

அளிப்பணியாய் அளிப்பணியேசீ தம்கை அளிப்பணியேசீ  
அளிப்பணியாய், அருவணைப்பணியேசீ தரிதையாய்!

அருவணைப்பணியேசீ அருவணைப்பணியேசீ அருவணைப்பணியேசீ!

அருவணைப்பணியேசீ அருவணைப்பணியேசீ அருவணைப்பணியேசீ!

என் உணர்வாய் மகிழ் தைநீது எந்நீது அருவணைப்பணியேசீ!

நலியாய் அருவணைப்பணியேசீ, நலியாய் அருவணைப்பணியேசீ!

ஆம்! தையமீ தையநீதுநீது! அருவணைப்பணியேசீ பாருதமீ அருவணைப்பணியேசீ

உம்கை நாடி அருவணைப்பணியேசீ அருவணைப்பணியேசீ அருவணைப்பணியேசீ

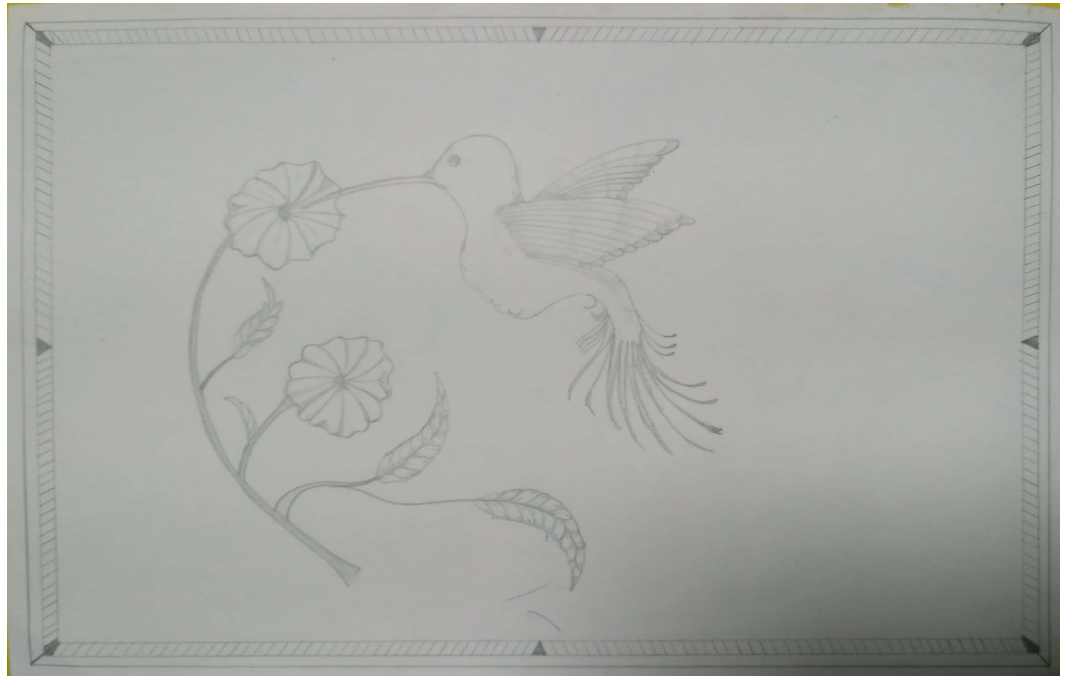
அருவணைப்பணியேசீ அருவணைப்பணியேசீ அருவணைப்பணியேசீ!

அருவணைப்பணியேசீ அருவணைப்பணியேசீ அருவணைப்பணியேசீ!



**Kayalvizhi**

**IV EEE A**



**ISHWARYALAKSHMI**

**III EEE A**



தமிழ் .

தமிழ்

தமிழ்

என்தான் உயராண தமிழ்

என் நெஞ்சில் கெணா வார்த்தை என்தான் தமிழ் .

ஆவ்வொரு தமிழும் உயர்மீச்சாக கொண்டிருக்கும் தமிழை

உலகம் முழுவதும் பரப்பாடு தமிழன் புணை,

உலகல் கனாநீய முகல் மீதீந் மொடியும் நம் தமிழ்

உலகல் முகல் மன்குறும் தமிழை !

பசுவும் அமீள என்து அழைக்கீடுமே

நாம் உய்யாலை அவுப்படுமே போதும் உலையின சந்தையம்

வெள்ளய உந்தும் நம் தமிழ் .

நாம் அரசுப் பரம்பரை என்து சொல்லுகவாம்

கிசரன் , சோழன் , பாண்டியன் முயும் தமிழர்கள் என்து

பெருமைக்கொன்றவாமே ,

நாடி துடிப்பும் , நம் தமிழ்

நம் நரம்புல கிருப்பதும் நம் தமிழ்

கிசரன் உள் கிருப்பதும் நம் தமிழ் .

கிருயலை ஆடுவதும் நம் தமிழ்

புறக்கும் குடிநீரை உபகம் முகல் வார்த்தையும் தமிழ் !

நம் தமிழை பெருமைப் படுத்திய நம் மகாநய

அவரால் நானும் பாடினான் தமிழ்க்கை ,

நாடும் பெருமைக் கொன்றவாமே தமிழனாய் மறந்ததற்கீடு

தலைநடந்திது சொல்லவாமே தமிழன் என்து !

விழுவது நாமாய்தும் வாழ்வது தமிழாகட்டும்!!!

வாழ்க தமிழ் !

உளர்க தமிழ் !!

- கனா . காரைக்கீவர்

|| EEE - A .

Hamshavarshini

III EEE A

தாயே !

தாய்மொழியின் முனித தன்மை

அறிந்தீதன் உன்னால் - தாயே

காற்றும் என்னை தீண்ட

அச்சம் கொள்வாய் - நீயே

நான் அருடையாசை கேட்டே

ஓடி வருவாய் என் - தாயே

தொற்றும் வேறானாயும் என்

உன் உன்னால் அதனது

என் உயிர் உனதல்லவா !!

உன் உயிர் எனக்கல்லவா !!!

- என்மும் உன்னை நினைக்கும்  
உன் மடிசைச் செல்வங்கள்

SURESH KUMAR

IV EEE B

பெண்

தீக்கு அது யாரென்று தெரியாதாம்; தன்னால்

ஆக்கவும், அடிக்கவும் முடியுமென்று

அதைபோல் பெண்ணுக்கும் தெரியாதாம்; தன்னால்

ஒருமனிதனை ஆக்கவும் அடிக்கவும் முடியுமென்று

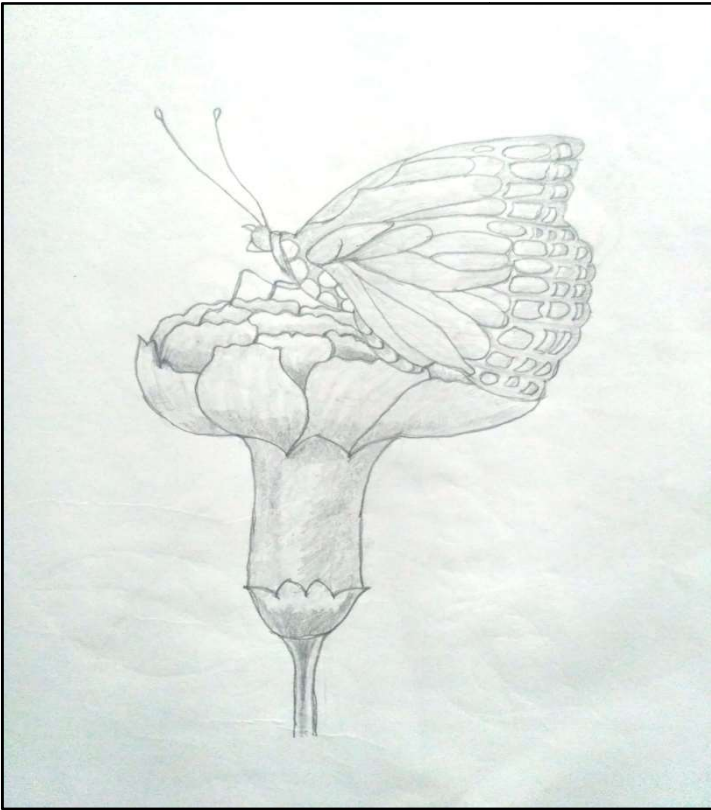
பெண் என்று, அவள் தீயென்று உணர்கிறாள்;

அன்றவள் வாழ்வில் பிரகாசமாகிறாள்

உணராதவள் வாழ்வில் இருளடைகிறாள்.

- சி.ரேஷ் தன்னன்.





**POONGUZHALI R**

**III EEE A**

**POONGUZHALI R**

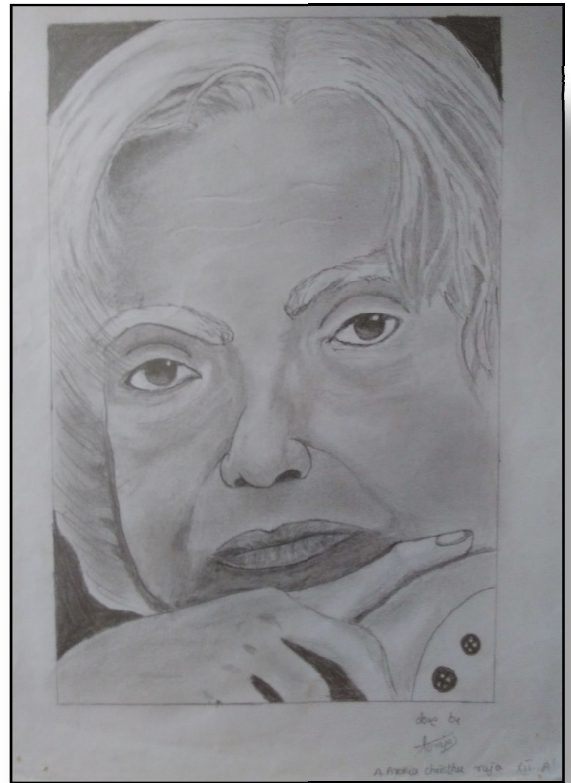
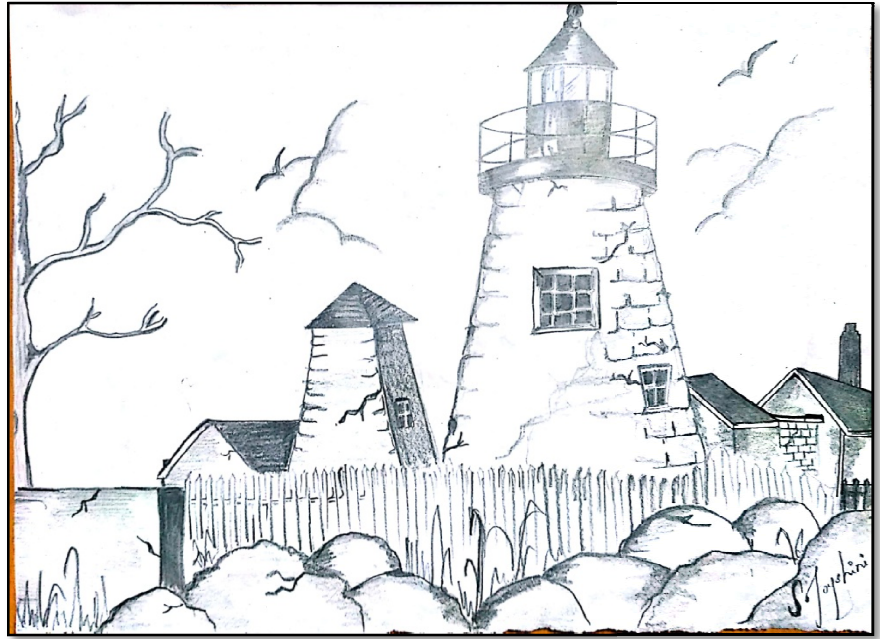
**III EEE A**





Joyshini Rachel.S

III EEE A



Arokiya Christu Raja A

III EEE A

## Memories of 2016-2017





